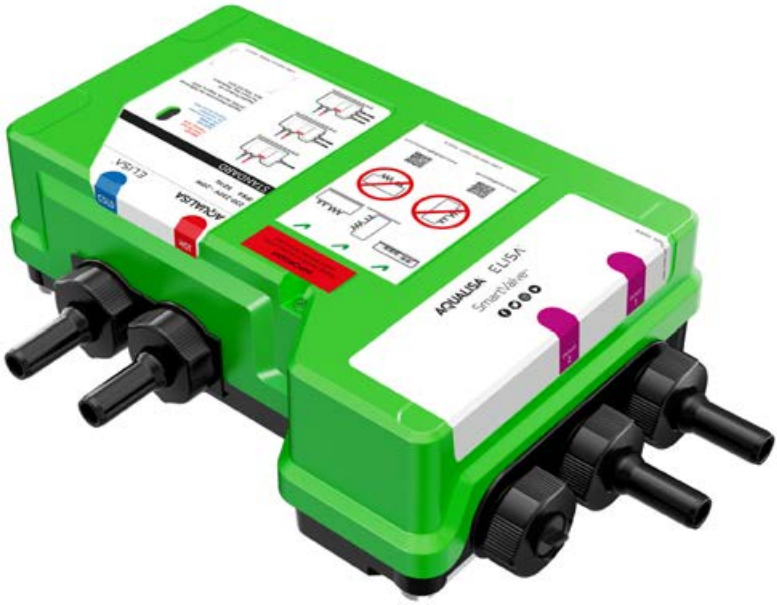
AQUALISA®



SMART

INSTALLATION GUIDE

Please note: For multi-outlet products, outlet pipework instructions need to be followed to ensure correct configuration. Please refer to pages 14 and 15.

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IMPORTANT INFORMATION

Safety information

This appliance can be used by children aged from 3 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance.

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

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

ALL PRODUCTS REQUIRING AN ELECTRICAL CONNECTION MUST BE INSTALLED BY A QUALIFIED PERSON FOLLOWING THE LATEST REVISION OF THE ELECTRICAL WIRING REGULATIONS, BOTH NATIONAL AND LOCAL AND CERTIFIED TO CURRENT BUILDING REGULATIONS. FOR UNPUMPED VARIANTS EARTHING IS NOT REQUIRED

Always disconnect the appliance from the supply before assembling, disassembling or cleaning.

This system should be installed so that other taps or appliances operated elsewhere within the premises do not significantly affect the flow. The Aqualisa® SmartValve™ must not be used with a hot water supply temperature of over 65°C. If the maximum hot water temperature is likely to rise above 65°C then a Thermostatic Blending Valve must be used. The Aqualisa® SmartValve™ 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 Aqualisa® SmartValve™ must be installed in an accessible location for servicing and maintenance. The Aqualisa® SmartValve™ must not be installed in situations where either the ambient temperature is likely to exceed 40°C or where freezing may occur. The controller 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 a controller in steam

therapy facilities. This appliance must be earthed. Cables must be protected by a suitably sized conduit or trunking to avoid risk of damage and to allow removal for service and maintenance purposes. Failure to install this way may invalidate the warranty. Ensure that the conduit is run to avoid the controller fixing holes. 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.
If the supply cord is damaged, it must only be replaced by the manufacturer or their accredited agent. The controller is supplied from a safety low voltage source. The duty rating of the pumped products is 15 mins on, 45 mins off. This product is suitable for domestic use only.

Installation of the pumped Aqualisa® SmartValve™ (for gravity stored systems)

The pumped Aqualisa® SmartValve™ shower system is designed to operate from a minimum static pressure of 10kPa ((0.1 bar)(1 metres head)(1.45psi)) up to a maximum static pressure of 100kPa ((1 bar)(10 metres head)(14.5psi)). Under no circumstances must the pumped Aqualisa® SmartValve™ 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 (unpumped) Aqualisa® SmartValve™ (for balanced high pressure and unvented systems, combination boiler systems and separately pumped gravity systems)

The standard (unpumped) Aqualisa SmartValve™ 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 500kPa ((5 bar)(72psi)) 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 and be of the type fitted with a fully modulating gas valve. If in any doubt, please contact the appliance manufacturer before installation commences.

DUE TO PERFORMANCE CHARACTERISTICS OF COMBINATION BOILERS, SEASONAL INLET TEMPERATURE CHANGE WILL AFFECT THE AQUALISA® SMARTVALVE™ OUTLET FLOW RATE RESULTING IN VARYING SHOWER FLOW RATE AND FLOW CONTROL RANGE. INLET TEMPERATURE CHANGE MAY ALSO CAUSE THE TEMPERATURE DISPLAY TO FLASH; THIS IS NOT NECESSARILY CHANGING THE OUTLET TEMPERATURE. DUE TO THE PERFORMANCE CHARACTERISTICS OF COMBINATION BOILERS, OPERATION OF THE BOOST BUTTON OR INCREASING THE FLOW RATE SETTING ON THE SHOWER CONTROLLER MAY NOT OFFER SIGNIFICANT CHANGE IN OUTPUT FLOW RATE.

Special notes for separately pumped gravity systems and universal/negative head pumps (for divert 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 products.

A universal/negative head type twin ended pump (works on both positive and negative head conditions) MUST be used with divert products.

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.

Shower Heads

The range of shower heads has been designed for use with Smart systems. Installation of any shower heads other than these may result in poor shower performance. If at any stage during installation you have any questions then please contact the Aqualisa® Customer Service Department on 01959 560010 for advice.

Connections

This product incorporates 15mm ‘push-fit’ type connections. Tube should be cut using a rotary type cutter and lubricated using a silicone grease, petroleum jelly, or similar, prior to insertion into the fitting. 15mm pipework must be used to connect the product.

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

CHECK PIPE SIZE REQUIREMENTS FOR CONNECTIONS TO OUTLETS AND ACCESSORIES.

Long pipe runs, on both the inlet and outlet, will reduce the flow rate at the shower head, 22mm pipe work should be used on inlets and reduced down to 15mm as close to the valve as possible to reduce pressure loss 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, and a diverter is used, use copper pipe rather than plastic. If plastic pipe is used, 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 local and national Water Supply Regulations prior to connection of the product.

Declaration of Conformity

Aqualisa® Products Limited declares that the Aqualisa® SmartValve™ and supplied controller, in conjunction with pairing remotes, complies with the essential requirements and other relevant provisions of the Low Voltage Directive (2014/35/EU), the EMC Directive (2014/30/EU) and the RED Directive (2014/53/EU).



Applicable for some models

After installation

Familiarise the end user with the operation of this product and hand them all literature. Complete and post the guarantee card or register online at www.aqualisa.co.uk

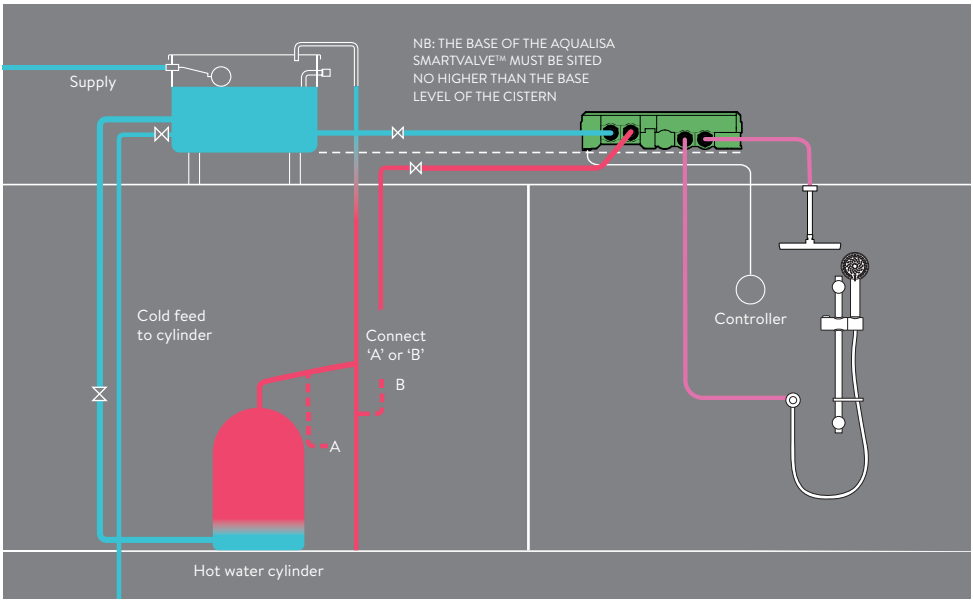
Guarantee

Aqualisa® products are supplied complete with a 1 year parts and labour guarantee that can be upgraded by registering the product with Aqualisa®. See www.aqualisa.co.uk/guarantee for details.

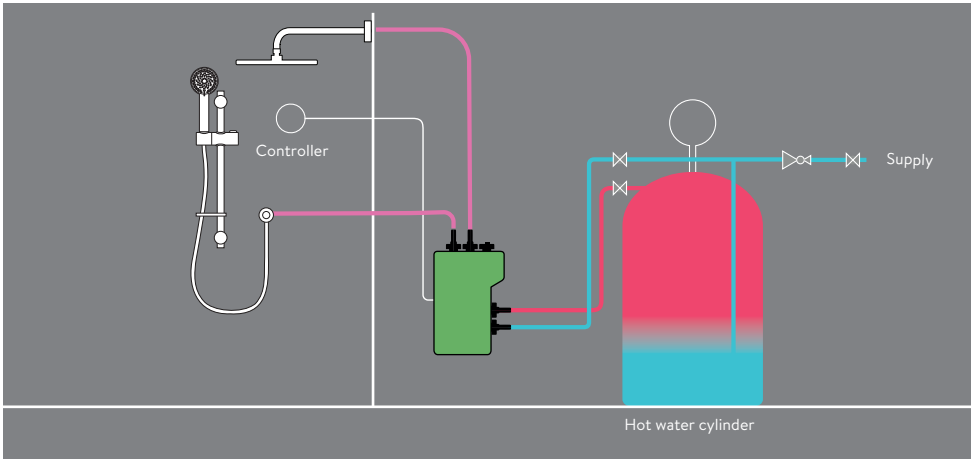
SYSTEM LAYOUT DIAGRAMS

Dual outlet model shown for illustrative purposes only. Images not to scale. (Single and triple outlet models also available).

Typical gravity system installation (compatible with pumped Aqualisa® SmartValve™)

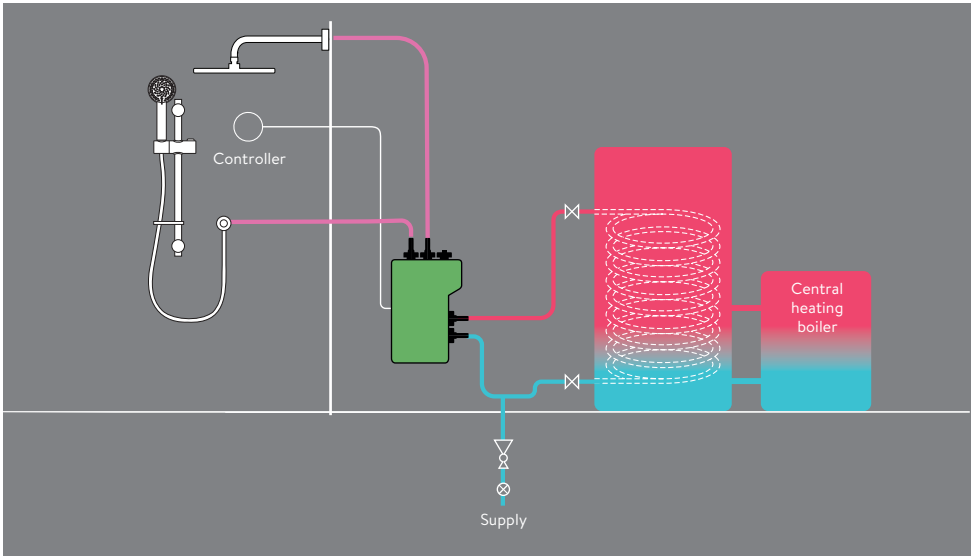


Typical UHW system installation (compatible with standard Aqualisa® SmartValve™)

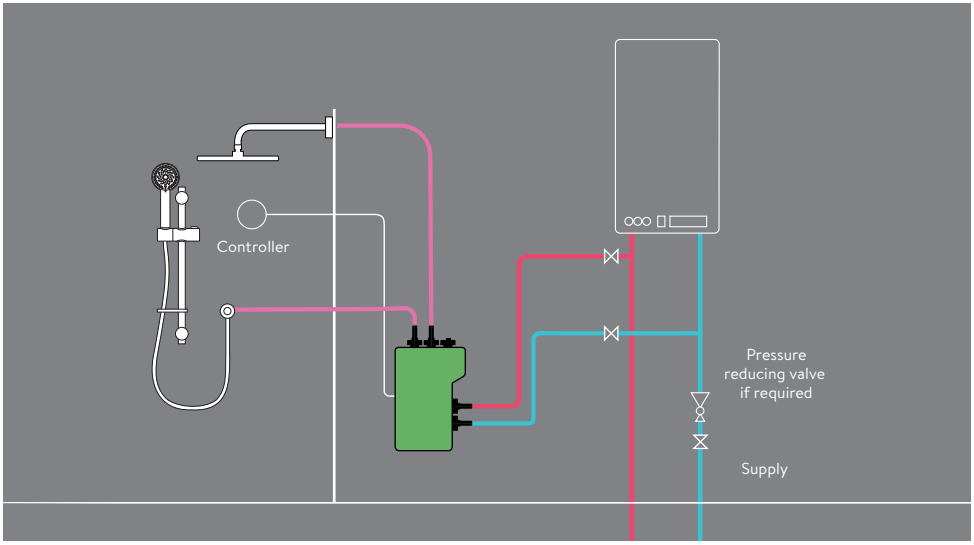


Dual outlet model shown for illustrative purposes only. Images not to scale. (Single and triple outlet models also available).

Typical thermal storage unit system installation (compatible with standard Aqualisa® SmartValve™)

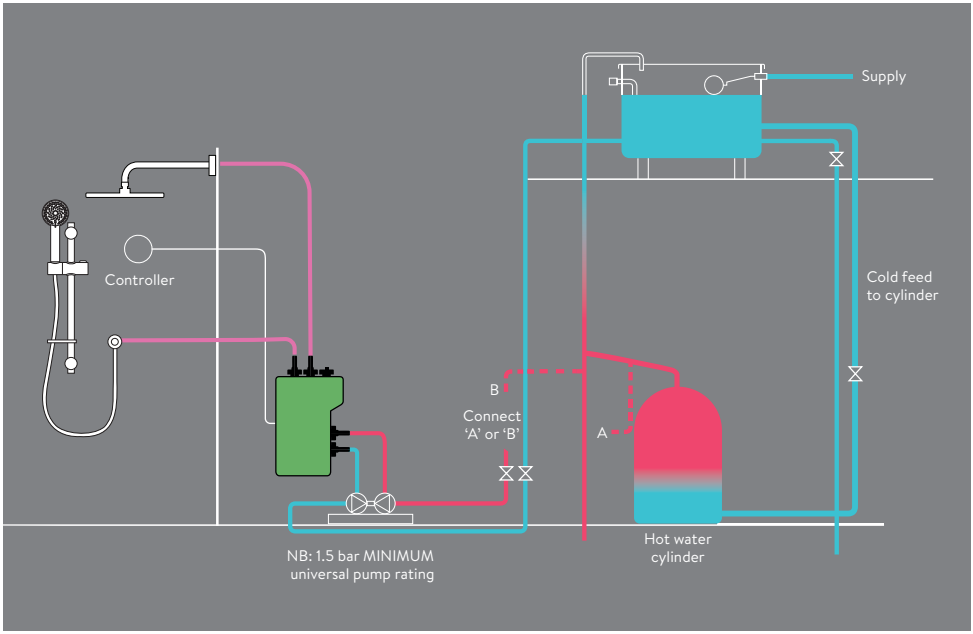


Typical combination system installation (compatible with standard Aqualisa® SmartValve™)



Dual outlet model shown for illustrative purposes only. Images not to scale. (Single and triple outlet models also available).

Typical pumped system installation (compatible with standard Aqualisa® SmartValve™)



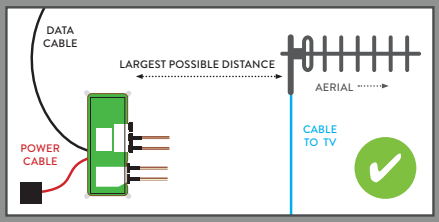
BEFORE YOU START

This product must be installed by a competent person in accordance with the relevant Water Supply Regulations.
Prior to installation, ensure all literature supplied with this product is read and understood. We have taken great care to ensure that this product reaches you in perfect condition, however should any parts be damaged or missing please contact your point of purchase. If you require assistance please contact the Aqualisa® helpline.
In addition to the guide below, it is essential that the important information (above) is read and understood and that you have all the necessary components before commencing installation. Refer to the separate Components List for reference.

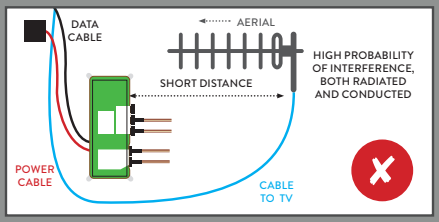
DIGITAL TV INTERFERENCE

Although the Aqualisa® SmartValve™ complies with all relevant EMC standards, if incorrectly sited, it may interfere with digital TV reception. Please follow the recommendations below to minimise this effect.

See recommended layouts below. Images of Aqualisa® SmartValve™ for illustration only, refer to instruction 1 for orientation.



LOWEST PROBABILITY OF INTERFERENCE



LAYOUT WHICH COULD CAUSE PROBLEMS

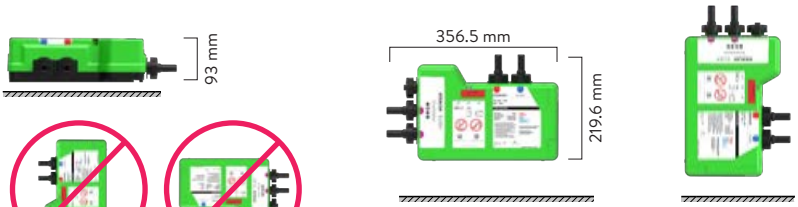
- Route cables separately, and as far apart from each other as possible.
- Aerial to point away from the Aqualisa® SmartValve™.
- Ensure the distance between the Aqualisa® SmartValve™ and the aerial is as large as possible.

AQUALISA® SMARTVALVE™

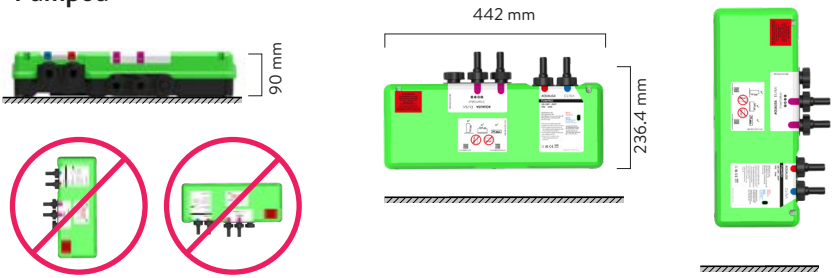
1

To ensure safe operation and installation of this product, the Aqualisa® SmartValve™ and MUST be installed in one of the orientations shown.

Standard



Pumped



(Single, dual and triple outlet models available).

2

Isolation valves are supplied with the Aqualisa® SmartValve™ and must be fitted on all inlet and outlet connections.
All connections require 15mm pipe, and all pipe work should be supported.

For gravity fed installations, 22mm pipe work should be run as close to the Aqualisa® SmartValve™ as possible before reducing down to 15mm.

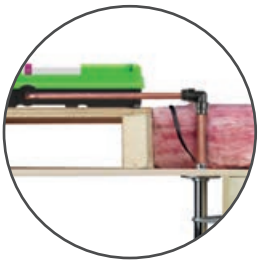


To ensure optimum performance we recommend using copper pipe with a minimum number of elbows. To minimise post shower dripping outlet pipework should have a gentle gradient rise away from the Aqualisa® SmartValve™. Special notes for plastic pipework, refer to the Important Information (Connections) section.

The inlet supply centres are 48mm. Please note arrow on isolation valve to indicate direction of flow. DO NOT use compression fittings on the inlet and outlet spigots as this will invalidate the warranty if fitted.

3

Choose the position for your Aqualisa® SmartValve™ as close to the controller as possible. These may be sited in the roof space (see important information section below) above the proposed shower site, in the airing cupboard or behind a screwed bath panel if more convenient. For information regarding protecting the Aqualisa® SmartValve™ from cold/frost, contact Aqualisa® Customer Services or refer to the Aqualisa® website. Insulation material must not be placed under or on top of the Aqualisa® SmartValve™, the location should be where freezing cannot occur. Pipework and fittings should be suitably lagged to protect against freezing. Please refer to the system layout diagrams.



Exposed installation example shown

The Aqualisa® SmartValve™ MUST be sited in a position that is safely accessible for servicing and commissioning purposes. When fitted in a loft / roof space it MUST NOT be under the eaves, the route to, and around the Aqualisa Smart Valve must be boarded to ensure a safe working environment.

The distance between the Aqualisa® SmartValve™ and the controller must be within the range of the data cable supplied.

4

Place the Aqualisa® SmartValve™ on a solid mounting surface, and place the fixing feet into suitable positions. Mark, then drill and prepare suitable fixings and secure to the mounting surface.



5

Flush through both hot and cold supply pipes.

Refer to safety information section.
The maximum hot water inlet temperature must be no more than 65°C.

6

Attach the supply pipes to the Aqualisa® SmartValve™, ensuring that the cold and hot feeds are fitted into the appropriately marked inlets.



Do not solder near to plastic components.

7

Run pipework from the mixed water outlet of the Aqualisa® SmartValve™ to the proposed siting for the shower hose outlet, fixed head, bath filler depending on the system purchased.

For single outlet models, proceed to the relevant Controller section (Concealed or Exposed).

8

Ensure that the isolation valves are connected to the outlet spigots, with the arrows correctly aligned according to the direction of flow.

Run the pipes from the mixed water outlets of the SmartValve™ through to the proposed siting for the shower outlets, depending on the system chosen. For 2 buttoned shower divert controllers the outlets are assigned to the controller buttons as follows:

- Top button to outlet 1 of the SmartValve™
- Bottom button to outlet 2 of the SmartValve™

For single button divert controllers (without a display screen), the primary outlet must be connected to outlet 1 of the SmartValve™.

This may influence your primary outlet choice and plumbing configuration when using the Aqualisa® app and/or smart speaker. For the majority of installations we suggest that outlet 1 is plumbed in as the primary outlet.

MULTI OUTLET - PRIMARY OUTLET SETUP & PIPEWORK CONFIGUARTION

Controller 1

The controller will automatically assign the outlets as follows:

- Top button to outlet 1 of the SmartValve™
- Bottom button to outlet 2 of the SmartValve™

Primary Outlet Set Up

Wired remote:

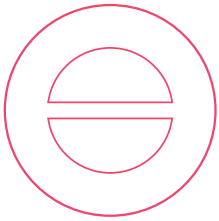
SmartValve™ outlet 1 will be allocated as the primary.

Aqualisa® App:

Outlet 1 is always the primary (default) outlet.

Smart Speaker:

Will always default to the outlet that was last used.



Controller 1

Controller 2

Remove the protective label to allow the temperature bezel to rotate.

Refer to User Instructions, Configure Outlets section.

Note: the outlet pipework and connections to the SmartValve™ does not affect the primary outlet settings, configuring the outlets via the controller settings will establish the preferred primary outlet.

Aqualisa® App:

Will start the outlet as per the user profile settings.

Smart Speaker:

Will start the outlet as per the user's specific settings.



Controller 2

Other Controllers

Primary Outlet Set Up

Controller:

SmartValve™ outlet 1 will be allocated as the primary.

Wired Remote (controllers 4 & 5):

SmartValve outlet 1 will be allocated as the primary.

Aqualisa® App:

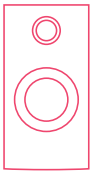
Outlet 1 is always the primary (default) outlet.

Smart Speaker:

Will start the outlet as per the user's specific settings.



Controller 3



Controller 4



Controller 5

CONTROLLERS - CONCEALED SHOWERS

For exposed models proceed to page 22.

Positioning the controller

Think about the location of the controller. Avoid grout lines where possible to ensure good surface contact with the silicone seal of the mounting plate.
Choose a suitable height so all users can easily see and use the controller.

Some controllers are activated by a proximity sensor. Refer to the user guide for details and further information.

Tip- for ease of keeping clean and to improve the longevity of the controller, site it in a position where it is not subjected to continuous spray.

Ensure the data cable is the correct way round as both ends differ in type of connection used (transparent connector to the Aqualisa® SmartValve™)
Data cables must be protected by suitable sheathing or conduit in the event of servicing and maintenance. Failure to install this way will invalidate the warranty.

Care should be taken to ensure that fixings do not pierce the data cable conduit.

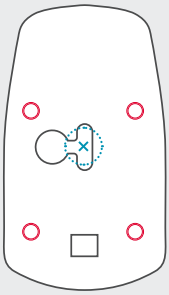
Supplied screws must be used as failure to do so will result in poor fitting of the controller, affecting its functions and may invalidate the warranty. If the supplied screws are not suitable for the mounting surface, use a screw of the same size and head design, the screws used must be non corrosive.

Power supply to the Aqualisa® SmartValve™ must be switched off before connecting or removing the controller.

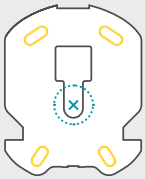
Make note of your mounting plate type (A, B C, D, E or F) when proceeding with below instructions.

6mm 5mm
Data cable entry hole

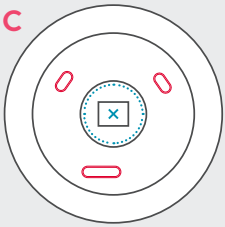
A



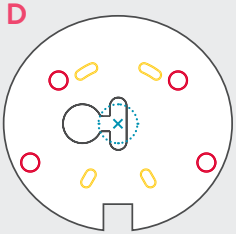
B



C



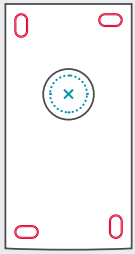
D



E



F



Fixing Specifications (refer to above)	Mounting plate type					
	A	B	C	D	E	F
Data cable entry hole size	Ø16mm	Ø16mm	Ø22mm diamond dust hole saw must be used	Ø16mm	Ø16mm	Ø16mm
Mounting plate screws and fixings	6mm drill bit for red fixings	5mm drill bit for yellow fixings	6mm drill bit for red fixings	6mm drill bit, for red fixings **or** 5mm drill bit for yellow fixings	6mm drill bit for red fixings	6mm drill bit for red fixings

1

For mounting plate E (controller 5): Undo the screw and remove the end cap from the controller assembly. Carefully pull the controller away from the back plate and set aside.



2

For mounting plate F (controller 4): Unscrew the two front cover fixings at the base of the controller, ensuring the captive screws drop sufficiently to allow the front cover to be pulled clear. Carefully lift the controller from the bottom of the back plate and pull the cover clear.



3

Place the mounting plate on the wall in the desired location for the controller and mark the central position for the data cable entry point as represented by ⊗ in the diagram on page 17. Remove the mounting plate and drill the data cable hole at the required size (see table on page 17) at the appropriate position.

i

Diamond dust hole saws

When using the diamond dust hole saw to cut a hole for the mounting plate, follow the manufacturers guidelines. This type of hole saw is suitable for ceramic tiles, glass, marble, slate and porcelain tiles. If cutting into showering panels or marine board a suitable Ø22mm hole saw should be used. For some brands of diamond dust hole saw it is recommended to wet the saw before cutting. Make an initial cut into the tile at an angle to avoid slippage of the drill bit.

4

Referring to the table on page 17, mark, drill and prepare the wall fixings for the mounting plate using the screw pack provided. **The supplied screws MUST be used.** If the supplied screws are not suitable for the mounting surface, use a screw of the same size and head design, the screws used must be non corrosive.
For mounting plate C: Utilise the slotted fixing holes to align and to avoid hidden cables.

i

If fitting mounting plate B or D, for ease of installation, after positioning the cable (as per point 5), screw to the finished wall surface then utilise the silicone injection points to gently feed silicone into the channels. Alternatively, apply the silicone directly into the mastic groove before fixing it to the wall.

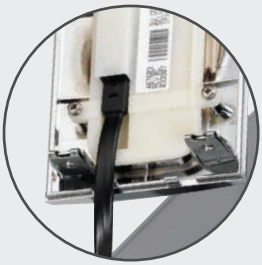
5

Ensure the data cable is correctly positioned as shown.

Feed the controller connection end of the data cable through the hole in the mounting plate, ensuring enough length to correctly connect into the back of the controller.

For mounting plate A, C and F: Run a bead of silicone sealant in the mastic groove on the back of the mounting plate. Ensuring the surface area is clear of debris press into position on the finished wall surface. Note: For mounting plate C remove the paper liner on the foam gasket.

To prevent the data cable from receding into the hole, secure the cable into the narrow middle slot of the mounting plate. Fix the mounting plate to the wall. **The supplied screws MUST be used.** If the supplied screws are not suitable for the mounting surface, use a screw of the same size and head design, the screws used must be non corrosive.

Mounting Plate A	Mounting Plate E	Mounting Plate F
		
		
	 The data cable entry point within the wall should be filled with mastic to prevent water ingress.	

Connection of cable into controller (Keyways)

Mounting plates A-D:

The key way of the cable must be facing to the right to align with connection in the controller.

Mounting plate E:

Align the white arrows on the cable connectors.

Mounting plate F:

The key way of the cable must be facing outwards to align with connection in the controller.

6

Lining up the keyways of the data cable and the controller, push the data cable plug into the back of the controller. Ensure both rubber skirts are recessed into the connection (see diagram). To make a watertight fitting, ensure the rubber seal is no longer visible.



If required, utilise a blunt flat bladed screwdriver or similar tool to push the connection fully home.

7

For mounting plate A, B and D: After correctly inserting the data cable, offer the controller onto the mounting plate whilst feeding the cable back through the slot. Gently but firmly, push the controller down to secure and locate onto the mounting plate.

For mounting plate C: After correctly inserting the data cable, offer the controller up to the mounting plate whilst feeding the cable back through the slot. Position the controller into the mounting plate with the power symbol at the 7 o'clock position. Using the palm of your hand, gently apply pressure to the screen to locate the controller evenly into the mounting plate. With the other hand use the lever to rotate the controller counter clockwise until it stops and is seated in the mounting plate, and the power symbol is at the 6 o'clock position.

Visually check all the way around the two mating components to ensure there are no gaps and the controller is correctly fitted.

For mounting plate E: attach the data cable to the controller fly lead ensuring firmly connected. Tuck the remainder of the cable into the control before placing the controller into position on the back plate.
Locate the end cap into position at the bottom of the controller assembly. Tighten the screw to secure the controller to the back plate assembly.



Mounting plate F: Locate the fixing lugs on the top of the controller into position at the top of the back plate and push the bottom of the controller into place. Hold the controller in position and secure to the back plate using the fixing screws at the base of the controller.



8

All other controllers: Lock the controller onto the mounting plate with the fixing screw located at the base of the controller using a small Pozidrive screwdriver.

To ensure a watertight seal, we recommend running a thin bead of silicone around the top half of the concealed controllers once it has been secured to the mounting plate (mounting plates A, B and D).
Remove the protective label to allow the temperature bezel to rotate (where applicable).

Proceed to sections Aqualisa® SmartValve™ Setup followed by Controller Commissioning Instructions.

CONTROLLERS - EXPOSED SHOWERS

SmartShelf™ Installation

If fitting a SmartShelf™, do not proceed, refer to the separate installation guide provided.

Positioning the controller

Think about the location of the controller.

Choose a suitable height so all users can easily see and use the controller.

Some controllers are activated by a proximity sensor. Refer to the user guide for details and further information. If the ceiling height is over 2.4m (8ft), a 550mm riser rail extension kit will be required. Contact our Customer Service Department to purchase a riser rail extension kit (part no: 910920).

1

FOR ALL MODELS: Locate a suitable entry point into the ceiling for the riser rail, avoiding joists and services and drill a hole through the ceiling, a minimum of Ø30mm, maximum Ø40mm.

For all models the centre of the riser rail stands 45mm from the wall.
All control types **except 4 & 5** are supplied with spacers. If required, the spacers provided with the fixing brackets will increase the depth to 70mm (from the wall).

2

Controller type 5 only



Mount the template to the wall in the required position ensuring vertical alignment using a spirit level to facilitate if necessary. Carefully mark the four fixing holes. Check the position of the rail assembly, before removing the template, then drill and prepare suitable wall fixings for the four mounting screws.



The minimum distance from the top fixing to the ceiling is detailed on the template. 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. Remove the ceiling plate if required.

3

Controller type 5 only

Fix the top wall bracket to the appropriate position using the screw provided (if suitable) ensuring that the arrow on the bracket is facing upwards.



4

Controller type 5 only

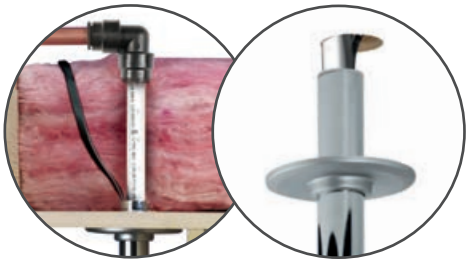
Secure the mounting bracket using the screws supplied (if suitable) ensuring that the bracket is mounted in the correct orientation as shown.



5

All controller types

Feed the data cable through the hole in the ceiling followed by the riser rail assembly containing the supply pipe. Ensure the controller 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.



DO NOT use a compression fitting or soldered joint to connect the outlet pipe to the top of the exposed product.

Elbows (for exposed models only)

We know that installers have their favoured plumbing connections. Below are guidelines to ensure you select the right one:

- size: 15mm
- Push fit only (Compression fit will not be suitable)
- Demountable (Where no specialised removal toll is required)
- Suitable for Copper, PE, PEX pipework
- Operating pressure - up to 7 bar
- Operating temperature - Max 65°C.

This connection MUST be sited in a position that is safely accessible for commissioning, servicing and maintenance purposes. Failure to meet these requirements will invalidate the warranty.

6



Controller type 4 only

Drill and prepare the fixing points using the fixings supplied, and fix the unit to the wall using the screws provided, (if suitable).



7



Controller type 5 only

Before mounting the rail assembly to the wall, ensure that both the hose restraint and the handset holder are below the position of the top wall bracket. Offer the assembly up to the top bracket and hook it onto the lip, before clipping the control end of the rail onto the bottom mounting bracket. Proceed to point 13.



8

All controller types (except type 5)

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

9

All controller types (except type 5)

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



10

All controller types (except type 5)

Slide the fixing bracket over the rail and support pillar and mark the fixing points. Remove the fixing bracket and drill and prepare the fixing points, using the fixings provided (if suitable). Secure the bracket to the wall using the screws provided.



11

All controller types (except type 5)

Carefully slide the cover onto the fixing bracket flush with the finished wall surface and click the sides firmly into position.



12

All controller types (except type 5)

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



13

Controller type 5 only

To secure the control, tighten the captive screw at the base of the control using a small Posidriv screwdriver.

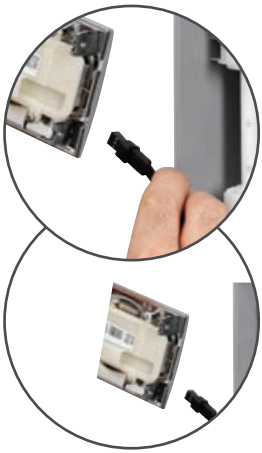


14

Controller type 4 only

Lining up the key way, push the data cable plug into the back of the controller, ensuring both rubber skirts are recessed into the connection (see diagram below), using a blunt flat bladed screwdriver or similar tool if required. To make a water tight fitting, ensure the rubber seal is no longer visible.





15

Controller type 4 only

Locate the fixing lugs on the top of the controller into position at the top of the back plate and push the bottom of the controller into place.



16

Controller type 4 only

Hold the controller in position and secure to the back plate using the fixing screws at the base of the controller.



SMARTVALVE™ SETUP

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. All copper pipe work must be cross-bonded and connected to a reliable earthing point.

Some standard SmartValve™ are supplied with an external power pack, this should be secured to a suitable surface using the integrated fixing points.
The power lead should also be clipped in place with `P' clips or similar to avoid accidents.
The standard Smartvalve is double insulated and therefore has no earth wire.

1

Power supply to the pumped SmartValve™ **MUST** be earthed and utilise a 3 amp fuse.
Connect the Aqualisa® SmartValve™ power lead to a suitable electrical connection in accordance with current local and national wiring rules (refer to safety information section).
Examples of suitable connections:
• A double pole 3 amp fused switched spur incorporated in the fixed wiring circuit.
• A plug and socket, whereby the 3amp fuse can be fitted into either the plug or the socket itself.
Ensure that these are located in an accessible, dry location and not in the bathroom.



THE PUMPED SMARTVALVE™ APPLIANCE MUST BE EARTHED
We recommend protecting surface mounted cables in suitable approved conduit to avoid the risk of damage from vermin.
The power lead should also be clipped in place with 'P' clips or similar to avoid accidents.

2

Loosen the single fixing screw on the top of the Aqualisa® SmartValve™ then carefully tilt the lid up and off the location lugs, and set the lid aside.
Plug in the transparent connector of the low voltage, data cable into either of the two sockets adjacent to the temperature adjuster as indicated on the label.
Feed the cable out of the Aqualisa® SmartValve™ ensuring it is correctly routed within the data cable channel.



A secondary data cable socket has been provided for use with a wired remote. Please refer to the Wired Remote Installation Guide.
Note: Wired Remotes are product specific.

3

When making any adjustment to the Aqualisa® SmartValve™ settings the power MUST be isolated. For water economy utilise the Eco mode. **This is not to be used on Combination boiler installations, whereby only the Combi mode must be used.**

To change the mode, use a flat bladed screwdriver.

Use the table provided for water system settings.



SETTING WATER SYSTEM MODE

SHOWER MODE



For most installations the Shower Mode will be utilised, for further information see page 29:
- Water system mode table
- Bath Mode section

When changing from a Gravity water system to a Mains fed (e.g. Combination boiler), the complete Smartvalve **MUST** be replaced - i.e. from pumped to a standard.

The ECO setting reduces the flow rate, therefore is not recommended when used in conjunction with combination boiler or bath filler applications.
Site conditions can affect temperature settings, installer to adjust as required. See Controller Commissioning Instructions section.

SETTING WATER SYSTEM MODE

Water System (Refer to diagrams p 8-10)	Valve Type	Setting
Combination Boiler - **ensure setting is changed from factory default**	Standard Aqualisa® SmartValve™ 	Combi **Factory default will be Normal, this setting must be changed to Combi for temperature stability and optimum performance**
Balanced High Pressure	Standard Aqualisa® SmartValve™ 	Normal (factory default) or Eco
Separately Pumped Gravity	Standard Aqualisa® SmartValve™ 	Normal (factory default) or Eco
Gravity Fed	Pumped Aqualisa® SmartValve™ 	Normal (factory default) or Eco

BATH MODE



See above table for water system and MODE setting.
When set to BATH, the following features are activated:

- The run-time is 12 minutes, once reached the flow will automatically shut-off.
- If you restart the flow of water within 1 minute of the automatic shut-off, the flow will only run for a further 1 minute before shutting off again.
- If the output temperature is 10 °C or less than the demand temperature (as set on the controller), the shower will only run for 1 minute (attempting to reach the chosen temperature before automatically shutting off).

This prevents the bath being filled with water cooler than desired.

- For some controllers this will set the default flow rate to Maximum and will prevent the user from changing the flow rate.

CONTROLLER COMMISSIONING INSTRUCTIONS

When the power supply to the Aqualisa® SmartValve™ is turned on the controller will automatically go into a set-up / configuration sequence.
Whilst in the set-up sequence the controller will display flashing LED's or a message on the display screen, this process can take up to 2 minutes to complete.
The controller is ready to use once the configuration process has finished.
Controller type 2 - Special note: The protective label must be removed to allow the temperature bezel to rotate freely.

1

Turn on the power supply to the Aqualisa® SmartValve™.

2

Run the shower at maximum temperature (factory pre set to 45°C). If required, the maximum temperature can be adjusted. (Refer to Safety Information for guidance).

3

To adjust the maximum temperate, isolate the power supply to the Aqualisa® SmartValve™.

Using a flat bladed screwdriver adjust the 'MAX TEMP ADJUSTMENT' control as indicated. When the temperature has been set to the desired position, carefully replace the Aqualisa® SmartValve™ lid and secure the fixing screw, hand tight only.



4

Reinstate the electrical supply to the Aqualisa® SmartValve™. Press the 'Start/Stop' button on the controller to turn the shower on.

ADJUSTABLE HEIGHT HEADS

1

Ensure the finished wall surface is even, prepare pipework from the Aqualisa® SmartValve™ to the required position for the hose outlet using a Ø15mm pipe. Slide the wall spacer down the projecting pipe until flush with the finished wall surface.

2

Slide the 15mm gripper ring down the projecting pipe until flush with the wall spacer fitting.



3

Trim the projecting pipe to a length of 15-22mm, measured from the face of the gripper ring, using a suitable cutter. If a hacksaw is used, the pipe end must be carefully de-burred and chamfered.

4

Clean and lubricate the pipe using a suitable (silicone based) lubricant.

5

Remove the locking screw, rotate the chrome outlet assembly and remove the outlet from the wall mounting plate by carefully levering with a flat bladed screwdriver.



6

Ensuring the locking screw hole is positioned at the bottom, place the wall outlet mounting plate onto the pipe assembly and mark and prepare the fixing points, using the fixings provided (if suitable).



7

Secure the wall mounting plate to the wall using the screws provided (if suitable).



8

Place the 'O' ring on the recess of the spigot section on the mounting plate, offer the wall outlet onto the mounting plate in the 5 o'clock position and rotate clockwise until a stop is reached.

9

Refit the locking screw taking care not to overtighten.

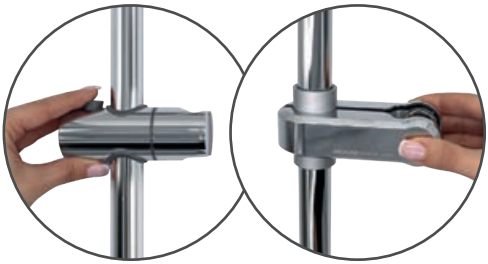


10

To fit the rail, prepare two fixing holes up to a maximum of 657mm apart.
N.B. The rail kit supplied utilises a floating bracket that can be positioned to suit existing screw holes on retrofit installations.

11

Dependant on the model purchased, depress the single release button or the side levers of the handset holder and slide onto the rail assembly.



12

Carefully slide the gel hook onto the rail under the handset holder.

13

Secure the top rail bracket into position on the finished wall surface using the short wall screw.



14

Slide the bottom rail bracket onto the bottom of the rail.



15

Slide the rail assembly up through the top rail bracket.



16

Align the fixing hole of the bottom bracket with the corresponding holes on the rail assembly, ensuring the smaller sized hole on the rail is closest to the wall. Secure the bottom rail bracket to the wall using the long wall screw.

17

Place the rail end caps into both brackets and push firmly into position.



18

Ensuring the hose washer is in the correct position; attach the hose to the wall outlet or the bottom of the exposed rail.

Run the shower for a few seconds to clear any debris and to check for any leaks.

19

Pass the hose through the gel hook.

Current Water Supply Regulations state that the handset should not be allowed to pass a point 25mm above the spill over level of the bath or shower tray. If this cannot be achieved, the hose must be passed through the gel hook which has been designed to be utilised as a hose restraint.

Make note of the type of your shower head (A or B) when proceeding with below instructions.



20

For shower head A: Ensuring the hose washers are in the correct position, depress the anti-swivel locking button on the handset and secure the handset to the hose. Place the handset into the handset holder.

For shower head B: Disengage the pivot clip by pushing in the outer grey button on the front of the shower head, as shown. Remove the threaded spigot from the bottom of the handset by loosely attaching the hose to the thread and pulling clear. Ensure the hose washer is in the correct position, tighten the threaded spigot into the hose using a suitable spanner, taking care not to over-tighten. Reinsert the spigot into the handset and engage the pivot clip prior to placing the handset into the handset holder.

WALL MOUNTED HEAD

1

Run a 15mm outlet pipe from the Aqualisa® SmartValve™ to the preferred position for the fixed head.

2

Cut the outlet pipe to the finished length (55mm-150mm measured from the finished wall surface) using a suitable cutter. If a hacksaw is used, the pipe end must be carefully de-burred and chamfered.

3

Offer the fixed head arm over the projecting pipework and ensuring it is visibly straight, mark the four fixing points.

4

Remove the fixed head arm and drill and prepare using the fixings provided (if suitable) taking care to avoid pipework hidden in the wall.

5

Ensuring the pipe is clean and free of dust, slide the wall spacer followed by the fixing bush onto the pipe flush with the finished wall surface.

6

Fit the 15mm 'O' ring against the end of the fixing bush.
Lubricate the 'O' ring using a suitable silicone based lubricant.



The 'O' ring must be positioned on the 15mm pipe flush to the fixing bush, not onto the fixing bush shaft.

7

Refit the shower arm and secure it to the wall using the screws provided (if suitable).



Run the shower for a few seconds to clear any debris and to check for any leaks.

8

Slide the cover plate into position flush with the finished wall surface.



9

Ensuring the rubber washer is in the correct position, attach the shower head to the fixed arm and carefully secure using a suitable spanner, or a tool with smooth jaws, sufficiently to lock the head into position.



CEILING MOUNTED HEAD

The ceiling mounted fixed head is supplied with screws for fixing the product to a noggin. A NOGGIN MUST BE USED AS PART OF THIS INSTALLATION.

1

Run a 15mm outlet pipe from the Aqualisa® SmartValve™ to the preferred position for the fixed head.

2

Locate the position for the fixed head in the bathroom and firstly drill a pilot hole to mark the position before checking that there is suitable space behind the ceiling for the fixing assembly.



The minimum height required behind the ceiling is 50mm and the space must allow for an 80mm wide, 50mm deep noggin to be used to support the assembly.

3

Drill a hole (minimum Ø28mm, maximum Ø40mm) through the ceiling and the noggin.

4

Remove the fixing bracket carefully from the fixed head arm.

5

Set the fixing bracket into position and mark the fixing points. Remove the bracket and drill and prepare suitable fixings. Refit the fixing bracket and secure it through the ceiling and into the noggin using the screws provided (if suitable).



6

Feed the arm through the fixing bracket to the correct depth. Tighten the nut using a 32mm spanner if necessary to facilitate.



7

Cut off the excess pipe allowing for a suitable working length to allow for the required 22mm connection. If a push fit connector is to be used then the pipe must be abraded to remove all chrome plating.

8

Connect the pipe work from the Aqualisa® SmartValve™ to the end of the fixed head pipe using a suitable coupling. Fully tighten the nut on the ceiling mounting bracket using a 32mm spanner if necessary to facilitate.

Run the shower for a few seconds to clear any debris and to check for any leaks.

9

Lubricate the 'O' ring if necessary and carefully slide the cover plate back over the fixed head arm and into position against the ceiling.



10

Secure the cover plate to the arm using the grub screw and 2.5mm hexagonal key provided.



11

Ensuring the rubber washer is in the correct position, attach the shower head to the fixed arm and carefully secure using a suitable spanner, or a tool with smooth jaws, sufficiently to lock the head into position.



BATH OVERFLOW FILLER

The bath overflow filler is suitable for baths up to a maximum thickness of 24mm.

1

Carefully unscrew and remove the overflow filler outlet from the body assembly and set aside.



2

Carefully unscrew and remove the bath waste clicker assembly from the waste body and set aside.



3

Offer the bath waste into position ensuring the rubber washer is correctly aligned between the waste assembly and the bath base.



4

Ensuring the rubber washer is correctly aligned, pass the bath waste clicker through the bath and secure to the waste body assembly.



5

Connect the bath waste to a suitable trap (not supplied).

6

Offer the outlet body assembly into position at the rear of the bath ensuring the rubber washer is correctly aligned between the outlet body assembly and bath wall.



7

Ensuring the rubber washer is correctly aligned, pass the overflow filler outlet through the bath and secure to the body assembly.



8

Remove the relevant inlet blanking plug and attach the flexible hose to the blended inlet connection.



PTFE thread tape MUST be used to guarantee a watertight seal.

9

Connect the flexible hose to the blended supply pipe ensuring a suitable non restrictive double check valve (not supplied) is fitted in line with current Water Supply Regulations.

WASTE PIPE EXTENSION KIT

If required for larger baths, a 900mm waste pipe conversion kit is available from the Aqualisa® Customer Service department, part number 910064. Please contact our Customer Service Department on 01959 560010.

1

Unscrew the clamping nut and remove the waste pipe from the waste assembly.

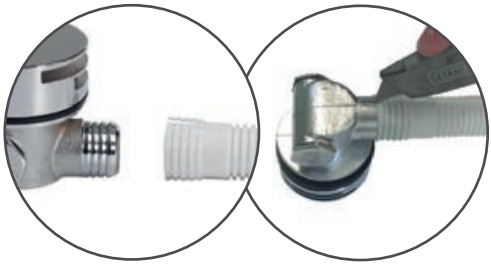


2

Remove the clamping nut and sealing washer from the waste pipe and set aside.

3

Carefully cut down the length of the waste pipe, and disconnect from the outlet assembly, ensuring not to damage the outlet.



4

To reassemble, push the longer waste pipe into position over the outlet, and secure it in place using a jubilee clip (not supplied).

NOTE: The waste pipe may need to be softened by running it under hot water, to ensure it slides over the outlet.

Keep your Smart Shower up to date

To benefit from continuous performance improvements and enhancements, we advise customers to connect their shower to the Aqualisa App.

For information on how to download the Aqualisa App please visit **www.aqualisa.co.uk/aqualisa-app**

For information on keeping your Smart Shower up to date please visit **www.aqualisa.co.uk/ssupdates**

STATEMENT OF COMPLIANCE

The Product Security and Telecommunications Infrastructure
(Security Requirements for Relevant Connectable Products) Regulation 2023

Brand Name:	**Aqualisa® & Elisa™**
Product Name:	**SmartValve™**
Model(s):	704410, 704415, 704419, 704429, 705755, 705756, 705757, 705758, 705759, 705760
Description:	Smart shower with internet connected control unit.
Batch:	All date codes.
Defined support period (correct as of when 1st supplied):	5 years up to March 2029.
Manufacturer:	Aqualisa Products Ltd, The Flyers Way, Westerham, Kent, TN16 1DE

This declaration of conformity is issued under sole responsibility of the manufacturer in accordance with the following legislation:

- PSTI Security Requirements for Relevant Connectable Products Regulations 2023

Conformity has been assessed to schedule 2 of the PSTI regulations 2023 has been demonstrated by using the following standards:

ETSI EN 303 645 V2.1.1:	All mandatory provisions.
ISO/IEC 29447 2018:	Sections 6.2.2, 6.2.5 and 6.5 to cover reporting of vulnerabilities.

Declaration

I declare that, as the Authorised Representative of the Manufacturer, the product specified above conforms to the stated directives and standards.

Date:	07/03/2024
Signed:	
Name:	Tracey Jones
Position:	Senior Manager, European Product Compliance & Test
Postal Address:	Aqualisa Products Ltd, The Flyers Way, Westerham, Kent, TN16 1DE

TROUBLESHOOTING

Symptom	Possible cause	Action
Controller LED's flashing and changing colour when power turned on to the Aqualisa® SmartValve™	Start up sequence and controller configuration in process (controller specific)	No action required - sequence and configuration can last up to 2 minutes. Wait until LED's go out and then the controller is ready to use.
Controller unresponsive - No Lights / Blank	Power supply turned off to Aqualisa® SmartValve™	Check power supply is turned on - Green power light should be illuminated on the Aqualisa® SmartValve™.
Controller displaying "Preparing, please wait...." for longer than 2 minutes	Loss of communications	Check data cable connections are making good contact and are fully inserted.
Pump noisy and low / no flow	Air lock (for Gravity fed systems only)	For models utilising an adjustable head kit; disconnect the handset from the hose, lower the hose into the shower tray or bath, set the temperature to fully cold and then start the shower. As the water starts to flow and increase in volume gradually increase the temperature. If the flow starts to splutter, stop moving the temperature control until the flow again stabilises, then continue to move the dial towards the hottest setting. Isolate hot and cold feeds to the Aqualisa® SmartValve™, disconnect from the inlet spigots and then using the isolation valve bleed through the hot and cold supplies. Release the outlet pipe work from the outlet isolation valve of the Aqualisa® SmartValve™. Using an appropriate connection, flexi or length of pipe connect to the isolation valve so that water can be discharged into a bucket or suitable receptacle. Start the shower and bleed through until air is cleared. It may be required to have the controller set at a cooler temperature setting until the hot water starts to bleed through, then gradually increase the temperature.
Pump noisy and low / no flow	Restriction in waterway	Check for debris in the inlet filters of the Aqualisa® SmartValve™.

Low / no flow	Incorrect Aqualisa® SmartValve™ fitted	If water supplies are gravity fed, the PUMPED Aqualisa® SmartValve™ must be used (unless a separate stand alone pump is being utilised).
	Water supply issue	For Standard Aqualisa® SmartValve™ - Ensure water is turned fully on at the mains and at the servicing valve in the supply. Ensure isolation valves are fully open.
	Mixed water supplies	For standard Aqualisa® SmartValve™ - ensure hot and cold supplies are from the mains water supply.
	Check filters	Check for debris in the inlet filters of the Aqualisa® SmartValve™, and fixed head connection washer.
	Incoming mains water pressure or flow too low	After confirming that the filters are clear, check with the local water authority.
	Connectors and water supply feeds to the Aqualisa® SmartValve™ are restrictive	Refer to IMPORTANT INFORMATION sections: Connections and Pipe sizing.
	Separate, stand alone pump not activating (Standard Aqualisa® SmartValve™ only)	Ensure sufficient flow to activate the flow switches of the pump. For all models (single and multi-outlet) a twin ended universal (negative head) pump must be used. Refer to IMPORTANT INFORMATION section.
	Incorrect setting on Logic Module of Aqualisa® SmartValve™	See special notes on page 28. A Pumped Aqualisa Smart valve must not be fitted to a Combination boiler. If Combi mode is selected, the Pumped Smartvalve will enter a failsafe mode.
Unable to adjust or control temperature	Reversed inlet water supplies (i.e. Hot supply feeding cold inlet and vice-versa)	Ensure correct water supply to specified inlet connection.
Temperature too low	Low hot water temperature	Check that domestic hot water temperature is a minimum of 55°C for stored water and 50°C for combination boilers.
	Logic Module temperature setting too low	Refer to section: Controller Commissioning Instructions.

Fluctuating water temperature	Incorrect setting on Logic Module of Aqualisa® SmartValve™	If hot water supply is from a combination boiler - the Logic module mode MUST be set to COMBI.
	Airlock in water supplies (for gravity fed systems only)	See “Air lock” in Possible Cause section.
	Hot water temperature too high	Ensure hot water supply temperature is below 65°C (minimum 55°C for stored water and 50°C for combination boilers).
	Communications issue	Check data cable connections.
	Combination boiler unable to meet demand	Check that the hot water temperature is stable at another high flowing outlet (e.g. bath hot tap - run at maximum flow rate), additionally run a cold outlet at 1/3 of a maximum flow rate.
Temperature too low - Controller temperature ready display does not stabilise	Mixed water supplies	Water supplies MUST be from the same source: MUST NOT be gravity hot and mains cold.
	Unbalanced water supplies	For mains fed systems the cold and hot feeds should be as evenly balanced as possible - especially for HP unvented systems.
	Combination boiler unable to meet demand	Check the hot water temperature is stable at another high flowing outlet (e.g. bath hot tap - run at maximum flow rate), additionally run a cold outlet at 1/3 of a maximum flow rate.
Controller remains illuminated after switching shower off	Poor cable connection	Check data cable connections are making good contact and are fully inserted (this includes installations where a wired remote is fitted).
	Object within range of proximity sensor and activating Auto Wake-up	Check user guide to see if the model in question has this feature - and if so go to settings menu for guidance on disabling this function.
Water flows from incorrect outlet (divert models only)	Pipe work configured incorrectly	Refer to section: Multi Outlet - Primary outlet set-up and pipework configuration (page 15).
	Primary outlet setting not configured	Refer to section: Multi Outlet - Primary outlet set-up and pipework configuration (page 15).
	Outlets not configured (For models with display screen only)	Refer to User Guide: Settings Section - Configuring your Outlets.
	Outlets not configured (For models with display screen only)	Turn off the power supply to the Aqualisa® SmartValve™, leave isolated for at least 2 minutes. Reinstate power supply and then following instruction in the User Guide (Settings Menu) complete a factory reset, then proceed to Configure Outlets.

 For further information and advice contact Aqualisa® Customer Helpline or refer to the Troubleshooting sections in the User Guide.

NOTES

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AQUALISA®

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