

AQUALISA



SMART INSTALLATION GUIDE

⚠️ Please note: For divert products, cable connection instructions vary depending on the model. Please refer to the section: 'Cable Diagram - Divert models only'.

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.

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.
The power lead must only be replaced by the manufacturer or their accredited agent. The controller is supplied from a safety low voltage supply. The pressure is adjustable to the incoming mains supply. A setting of 400kPa (4 bar/0.6psi) is recommended. It should be noted that daytime pressures approaching 600kPa (6 bar/0.8psi) can rise above the stated maximum overnight.

Installation of the pumped Aqualisa SmartValve™ (For gravity stored systems)
The pumped Aqualisa SmartValve™ 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 Aqualisa SmartValve™ be connected directly to the water main or in line with another pump or booster pump. The minimum actual capacity of the cold water storage cistern should be not less than 25 litres (5.5 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 boilers and separately pumped gravity systems)
The appliance must be installed to a maximum static pressure of 100kPa (1 bar/10 metres head/14.5psi). Under no circumstances must the standard Aqualisa SmartValve™ be connected to a hot water cylinder. The capacity of the hot water cylinder must be capable of meeting anticipated demand.

Pressures: 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/0.6psi) is recommended. It should be noted that daytime pressures approaching 600kPa (6 bar/0.8psi) can rise above the stated maximum overnight.

Special notes for combination boiler systems
The appliance must be installed to a minimum static pressure of 100kPa (1 bar/10 metres head/14.5psi). Under no circumstances must the standard Aqualisa SmartValve™ be connected to a hot water cylinder. The capacity of the hot water cylinder must be capable of meeting anticipated demand.

DUE TO PERFORMANCE CHARACTERISTICS OF COMBINATION BOILERS, SEASONAL INLET TEMPERATURE CHANGE, INLET TEMPERATURE 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 FOR MAXIMUM TEMPERATURE OF 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 systems.
The minimum actual capacity of the cold water storage cistern should be not less than 25 litres (5.5 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.
Pipe work must be pushed fully into the supplied connections and pressure tested. 15mm pipework must be used to connect the product.
Pipe work and connections should be protected using suitable lagging.
If a universal/negative head type 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. 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 piping, remotes and diverter, 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).

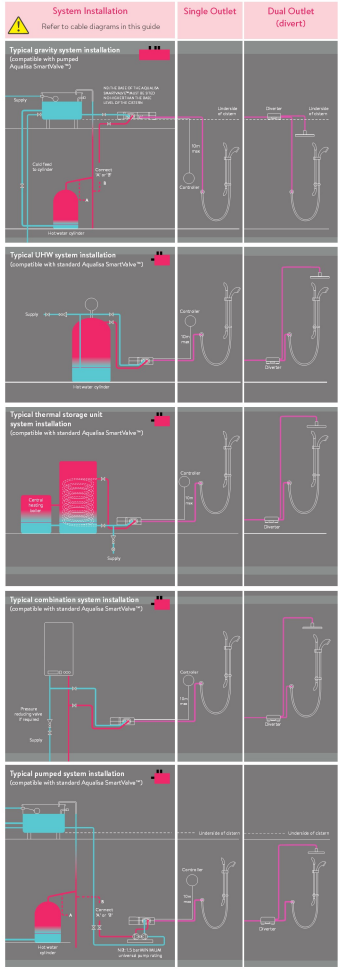


Applicable for some models

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 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



SMART INSTALLATION

⚠️ 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. The shower system is supplied with universal fittings intended to secure it to a suitable wall.
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.

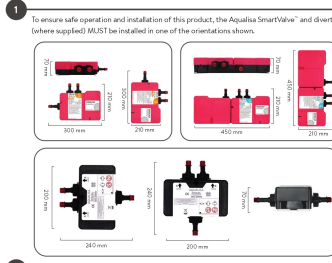
Digital TV Interference
Although the Aqualisa SmartValve™ complies with all relevant EMC standards, if incorrectly sited, it may interfere with digital TV reception. Please follow the recommendations below to minimise this effect.
See recommended layouts below.
Images of Aqualisa SmartValve™ for illustration 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.
- Avoid to point away from the Aqualisa SmartValve™.
- Ensure the distance between the Aqualisa SmartValve™ and the aerial is as large as possible.

Installation videos are available on our website www.aqualisa.co.uk/installation videos.

AQUALISA SMARTVALVE™ & DIVERTER



1 To ensure safe operation and installation of this product, the Aqualisa SmartValve™ and diverter (where supplied) MUST be installed in one of the orientations shown.

2 Isolation valves are supplied with the Aqualisa SmartValve™ and diverter (where supplied) and must be fitted on all inlet and outlet connections. All connections require 15mm pipe, and all pipe work should be supported and lagged.
For gravity fed installations, 22mm pipe work should be run as close to the Aqualisa SmartValve™ as possible before reducing down to 15mm.
Pipe work MUST be pushed fully home into the supplied isolation valves and pressure tested.
To ensure optimum performance we recommend using copper pipe with a minimum number of elbows. To minimise post shower dripping outlet pipe work should have a gentle gradient rise away from the Aqualisa SmartValve™ or the diverter (where supplied). Special notes for plastic pipework, refer to the Important Information (Connections) section.

3 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 sockets as this will invalidate the warranty if fitted.

3 Choose the position for your Aqualisa SmartValve™ and diverter (where supplied) as close to the controller as possible. There may be used in the roof space above the proposed shower site, in the airing cupboard or behind a screened bath panel if more convenient.
For information regarding protecting the Aqualisa SmartValve™ and diverter (where supplied) from outdoor, contact Aqualisa Customer Services or refer to the Aqualisa website. Insulation material must not be placed under or on top of the Aqualisa SmartValve™ and diverter (where supplied), the location should be where freezing cannot occur. Pipework and isolation valves should be protected using lagging. Please refer to the system layout diagrams.

4 The Aqualisa SmartValve™ and diverter (where supplied) MUST be installed in a position that is safely accessible for servicing and commissioning purposes. When fitted in a loft space, the route to, and the area around the Aqualisa SmartValve™ and diverter (where fitted) must be boarded to ensure a safe working environment.
The optimum position for the Aqualisa SmartValve™ and diverter (where supplied) is in the roof space above the controller site to take full advantage of the view and speed of installation. The distance between the Aqualisa SmartValve™ and the controller must be within the range of the 10m data cable supplied. For dual-outlet models, the diverter must be within the range of the 2m low voltage data cable connecting it to the Aqualisa SmartValve™.

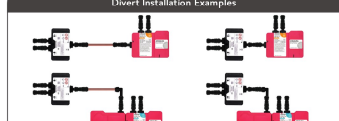
5 Flush through both hot and cold supply pipes.
Refer to safety information section.
The maximum hot water inlet temperature must be no more than 65°C.

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

7 Do not solder near to plastic components.
Pipework and isolation valves should be protected against frost and freezing by using suitable lagging.

8 Run pipework from the mixed water outlet of the Aqualisa SmartValve™ to the proposed setting for the shower hose outlet, fixed head, both fire or diverter depending on the system chosen.

9 For single outlet models, proceed to the relevant Controller section (Concealed or Exposed). If you are fitting a divert system continue below, then to the relevant Controller section.



10 Ensure that the isolation valves are connected to the diverter spigots, with the arrows correctly aligned according to the direction of flow.
Run the pipes from the mixed water outlets of the diverter through to the proposed setting for the shower hose outlet, depending on the system chosen. For 2 buttoned diverter divert controllers the outlets are assigned to the controller buttons as follows:
• Top button to outlet A of the diverter
• Bottom button to outlet B of the diverter
See Diverter Outlet and Diverter Controller Matrix on the reverse page for reference and information regarding setting up the primary outlet.
This may influence your primary outlet choice and plumbing configuration when using the Shower/He app and/or smart speaker. For the majority of installations we suggest that outlet A is plumbed in as the primary outlet.

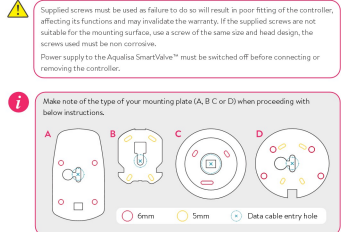
CONTROLLERS - CONCEALED SHOWER

1 Positioning the controller
Think about the location of the controller. Avoid grid 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.

2 Ensure the data cable is the correct way round on both ends of the type of connection used (transparent connector to the Aqualisa SmartValve™ or diverter (where supplied) N.B. Avoid sharp bends).
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 fittings do not pierce the data cable conduit.

3 Supplied screws must be used as failure to do so will result in poor fitting of the controller, affecting its function and may invalidate the warranty.
Screws used 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.

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



Fixing Specifications (refer to above)	A	B	C	D
Data cable entry hole size	Ø6mm	Ø6mm	Ø22mm diamond slot hole saw must be used	Ø6mm
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

1 Place the mounting plate on the wall in the desired location for the controller and mark the centre position for the data cable entry point as represented by 'X' in the above diagram. The mounting plate and the data cable hole at the required spot (see above table) at the appropriate position.

2 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 fitting into showering panels or marble based or suitable Ø22mm hole saw should be used. For some brands of diamond dust hole saw 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.

3 Referring to the above table, 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 were 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.

4 If fitting mounting plate B or D, for ease of installation, after positioning the cable on the panel, drill a hole to the finished wall surface than the silicone injection points to gently feed silicone into the channels.

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.
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 face. N.B. 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.
For mounting plate C: Use the spirit level to align.
The key way of the cable must be facing to the right.

6 Living 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 watertight, 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 while 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 to the mounting plate while feeding the cable back through the slot. Position the controller into the mounting plate with the power symbol at the 1 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 if the area around the two mating components to ensure there are no gaps and the controller is correctly fitted.

8 Lock the controller onto the mounting plate with the fixing screw located at the base of the controller using a small Phillips screwdriver.

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

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

CONTROLLERS - EXPOSED SHOWER

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

2 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 300mm tier rail extension kit will be required. Contact our Customer Service Department to purchase a riser rail extension kit (part no: 910920).

3 Locate a suitable entry point into the ceiling for the riser rail, avoiding pipes and services.
The centre of this 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.

4 Drill a hole through the ceiling, a minimum of Ø30mm, maximum Ø40mm.

5 The ceiling cable cannot be fixed against an uneven surface. If there is a concave or an alternative obstruction, please ensure the entry hole is flat and unobstructed; otherwise the inner tube could be visible within the showering area. Remove ceiling plate if required.

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

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