Aquavalve 609 Thermo V1.qxd:Aquavalve 609 Thermo.qxd 12/8/10 12:04 Page 1

Installation guide

Concealed valve

Thermo

Aquavalve 609®

AQUALISA

AQUALISA

Aqualisa Products Limited
The Flyer's Way
Westerham Kent TN16 1DE

Customer helpline: 01959 560010
Brochure Hotline: 0800 652 3669
Website: www.aqualisa.co.uk
Email: enquiries@aqualisa.co.uk

Republic of Ireland
Sales enquiries: 01-864-3363
Service enquiries: 01-844-3212

Part No:262501 Issue 02 Aug 10

Please note that calls may be recorded for training and quality purposes
The company reserves the right to alter, change or modify the product specifications without prior warning
© Registered Trademark Aqualisa Products Limited

Important information

Introduction
The Aquavalve 609 Thermo is designed for built in and concealed panel mount installations and provides close temperature stability and fail safe protection with approved gravity or pumped systems and balanced high pressure systems.
A cold inlet flow regulator is provided for use with instantaneous (multipoint) gas water heater and combination boiler applications.
If at any stage during installation you have any questions then please contact the Aqualisa customer helpline on 01959 560010 for advice.

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

The Aquavalve 609 Thermo valve is suitable for domestic use only.

Product specification
The Aquavalve 609 is suitable for all UK approved water supply systems including gravity, boosted gravity, balanced high pressure systems eg: unvented and combination boiler systems. *Pressure range 0.1 – 10 bar max (static).
* The combination boiler MUST have a minimum rating of 24Kw (80,000Btu) and be of a type fitted with a fully modulating valve.
If in any doubt, please contact the Aqualisa customer helpline before commencing installation.

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

Connections
The Aquavalve 609 Thermo valve incorporates 'push-fit' type connections suitable for use with 15mm British Standard copper tube. 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. Supply lines must be flushed clear of any debris before installation of the unit.

Where plastic pipe work is to be used, the tube insert must not increase the tube diameter or extend the cut off length by the more than 2mm.

THESE FITTINGS ARE NOT SUITABLE FOR STAINLESS STEEL TUBE

Isolating valves
Suitable isolation valves such as gate valves must be fitted to both supplies in accordance with the Water Supply Regulations and our terms of warranty.
Due to their restrictive characteristics, stopcocks and ball type valves that reduce the pipe bore size must not be used on gravity or gravity pumped installations.

Filters
To ensure ongoing optimum performance the internal control mechanism 'cartridge' is protected by a two-part filter system. Debris accumulation may result in reduced flow from the shower head and noisy operation.

As this condition is not covered by our standard warranty terms, it is suggested that the cartridge be removed and the filters checked by a competent person. In the event of any difficulties please contact the Aqualisa customer helpline for assistance.

Siting
For optimum performance, with gravity fed systems the distance between the bottom of the storage cistern and the shower head should not be less than 1m (when using an adjustable shower kit). If using a fixed head, the highest point of the pipe work must be not less than 1m below the underside of the cistern. Please refer to the system layouts on the reverse of this guide.

Boosted gravity installation
PLEASE REFER TO MANUFACTURER'S PUMP INSTALLATION GUIDE FOR PUMP INSTALLATION

UNDER NO CIRCUMSTANCES MUST A PUMP BE FITTED DIRECTLY TO THE WATER MAIN

A minimum 1 bar twin ended booster pump may be fitted with the Aquavalve 609, but for optimum performance a larger booster pump is recommended.

Please ensure the minimum gravity flow rate is sufficient to operate the pump flow switches.

A pump must only be used to boost the pressure from tank-fed supplies. A typical layout is shown on the reverse of this guide.

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

Pressures
The Aquavalve 609 Thermo valve is designed to control static pressure up to 10 bar. Where pressures are likely to exceed 10 bar a pressure reducing valve (PRV) must be fitted into the incoming mains supply. A setting of 3 bar is recommended. It should be noted that daytime pressures approaching 8 bar can rise above the stated maximum overnight.

The Aquavalve 609 Thermo is not suitable for mixed supply systems, e.g. gravity hot and mains cold.

A suitable PRV is available from Aqualisa.

Gravity fed hot and cold supplies
Services must be installed according to good plumbing practice having regard to pipe sizing, long pipe runs and low-head situations.
The cold supply for the valve assembly must be taken directly from the cold water storage system. The hot supply may be taken from the vent/draw off pipe of the hot water cylinder at a point below the cylinder connection or alternatively from the underside of the horizontal draw off.
Rising pipe work must not be connected into the horizontal draw-off from the cylinder or to any point in the vent/draw off pipe above the cylinder connection.

CYLINDER TEMPERATURE IN EXCESS OF 65°C MAY RESULT IN POOR SHOWER PERFORMANCE

To minimise pressure loss we recommend that the hot and cold supplies are run in 22mm as close as is reasonably possible to the mixing valve before reducing to 15mm.

A typical layout is shown on the reverse of this guide.

Balanced high-pressure system
The Aqualisa Thermo cartridge is designed to operate with unvented hot water storage systems up to a maximum pressure of 10 bar. A PRV must be used if either supply exceeds 10 bar. The cold water supply must be drawn from the same mains supply as that to the hot water system (down stream of the cylinder manufacturers pressure limiting valve, where supplied) and the hot supply from the nearest convenient draw-off point. Account must be taken of pressure drops that may occur when other draw-off points are used while the shower is in use.
Pipe work can generally be run in 15mm.

A typical layout is shown on the reverse of this guide.

Combination boiler/multipoint system
This is sufficient to operate one outlet point at a time.
The Aqualisa Thermo cartridge is designed to operate from the mains at a maximum pressure of 10 bar. If the mains pressure exceeds 10 bar a 'drop tight' PRV must be fitted on the supply pipe after the main stopcock.

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

The cold supply can be taken from the nearest convenient mains supply and the hot supply can be taken from the nearest hot water draw-off point. Account must be taken of the pressure drops that will occur when other draw-off points are used while the shower is in use. Pipe work can generally be run in 15mm.

The Aquavalve 609 thermo is suitable for use with combination boiler systems. The combination boiler MUST have a minimum rating of 24Kw (80,000 Btu) and be of a type fitted with fully modulating gas valves.

A typical layout is shown overleaf.

Customer helpline
01959 560010
Got a query? Need a stockist? helpline is open from 8.00am to 5.30pm Monday to Thursday and 8.00am to 5.00pm on Friday, to answer any questions, guide you through any aspect of your shower installation or advise you of your local stockist.

Product literature
0800 652 3669
Call our literature hotline to receive the latest Aqualisa product brochure containing details of our full range of domestic products. Commercial product brochures are also available on request.

Website
www.aqualisa.co.uk
Visit our website for comprehensive product information, details of your nearest stockist and installers, technical advice and more.

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

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

Aquavalve 609 Thermo
Concealed valve

Chrome
C609.01T

Gold
C609.04T

White
C609.20T

White/chrome
C609.21T

Aquavalve 609 Thermo (C609.01T) with Varispray adjustable height head (99.40.01)

Components

Literature not shown

Aquavalve 609 Thermo V1.qxd:Aquavalve 609 Thermo.qxd 12/8/10 12:05 Page 2

Aquavalve 609®

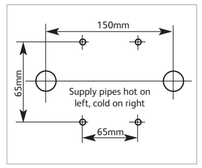
Thermo | Concealed valve

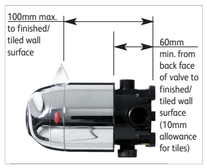
! In addition to the guide below it is essential that the written instructions overleaf are read and understood and that you have all the necessary components (shown overleaf) before commencing installation. Failure to install the product in accordance with these instructions may adversely affect the warranty terms and conditions. Do not undertake any part of this installation unless you are competent to do so. Prior to starting ensure that you are familiar with the necessary plumbing regulations required to install the product correctly and safely.

The Aquavalve 609 Thermo is supplied with universal fixings.

1 If installing the product built in to a solid wall, chase out a suitable recess in the wall to receive the valve and pipe work. If installing the valve in a concealed panel mounted situation, in most cases it will be necessary to first install a suitable sound fixing in the cavity area before fixing the valve. A hole of Ø130mm is required to install the valve and gain access to inlet and outlet connectors.

The valve needs to be mounted to the depth shown at the following centres. The distance between the 15mm inlet centre pipe centres is 150mm as shown.

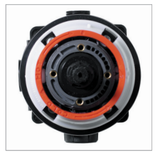




2 Mark the position for the four fixing points as outlined above.

3 Carefully remove the valve from its packaging and retain the mortar guard for later use.

4 Set the temperature control lever to full cold (9 o'clock) prior to removing the four screws securing the lever to the valve. Carefully remove the temperature lever to reveal the red temperature preset override ring and the white temperature preset location ring. Neither of these parts need to be removed for installation. However if they are removed please take a note of their orientation on the valve prior to removal (as illustrated).



5 Carefully remove the shroud from the valve assembly.

6 Fit the elbows to the valve body hand tight, ensuring that the rubber washers are correctly engaged (these are supplied in the screw pack).

7 If the valve is being installed for use with a gas fired instantaneous (multipoint) water heater or a combination boiler, the cold water flow regulator must be fitted at this stage by insertion into the cold water port as shown (the flow regulator is supplied in its own pack).

8 The Aquavalve 609 Thermo valve is supplied with an outlet cap on the bottom of the valve allowing for a top outlet connection. The bottom outlet can be used by simply removing the cap and repositioning it on the top outlet. If the cap is removed please ensure that when replaced the membrane in the cap is in place and that the cap is done up tight.

9 Fit the outlet connector ensuring the rubber washer is correctly engaged (supplied in the screwpack), on the required outlet ensuring a tight fit. Offer the valve up to the required fixing position to check the four fixings points are correct and there is adequate space available around the both inlet elbows and outlet connector. Prepare the wall fixings as required.

10 Using a silicone based lubricant, lubricate the supply pipe ends and whilst supporting the elbows, push home the supply pipes ensuring the correct orientation for the inlet pipes (HOT LEFT AND COLD RIGHT AS SHOWN ON THE VALVE BODY). Push the valve fully home until a definite stop is reached (tube insertion depth is 25mm). Secure the valve assembly to the fixing surface using the screws provided.

11 Construct a suitable 15mm outlet supply. The Aqualisa adjustable height head will need a 15mm outlet supply to a suitable point for the wall outlet. The Aqualisa fixed head will need a 15mm outlet supply terminating in a ½" BSP female fitting to accept the fixing spigot. Please see the installation instructions supplied complete with the suitable shower head for full fitting instructions. Using a silicone based lubricant, lubricate the 15mm outlet pipe and push into the outlet assembly fully home (outlet pipe insertion depth is 24mm).

12 Using a suitable tool, tighten both the elbow nuts and outlet connector nut until water tight.

13 The installation may now be checked for leaks. Push the on/off knob onto the front of the valve fully home and turn the knob fully clockwise to ensure the valve is fully turned off.

14 Turn on the supplies and check for any leaks upstream of the valve. Slowly open the control and check for leaks downstream of the valve. If all is sound, turn off the on/off knob fully, turn off the supplies and remove the on/off knob.

15 Place the mortar guard around the valve and fill in the chase. Once the in-filling material has set, carefully remove the polystyrene to expose the valve body.

! THE MORTAR GUARD MUST BE USED

16 Refit the red temperature preset override ring and the white temperature preset location ring if removed prior to installation, taking care to fit the override ring in the correct orientation as outlined in step 4. Before replacing the shroud, ensure the shroud seal is in position as indicated.

17 Replace the shroud ensuring that it is fully fitted against the shroud support ring as shown.

18 Using a silicone based lubricant or liquid soap, lubricate the wall plate seal. Apply a thin bead of silicone mastic into the groove on the rear of the wall plate and carefully push the wall plate into position flush with the wall ensuring correct orientation of the temperature markings.

19 Depress the maximum temperature stop button and replace the temperature lever onto the valve in the full cold (9 o'clock). Replace the four screws to secure the lever to the valve hand tight only.

20 Push the on/off knob onto the valve fully home. The two finger scallops should be uppermost when the valve is fully off. Locate the on/off knob face plate into position and secure using the small screw provided.

21 After checking that the badge recess in the on/off knob is clean, dry and free of dust, remove the paper backing from the badge a push firmly into position.

Commissioning

The Aquavalve 609 Thermo valve is pre-set to a safe maximum shower temperature. During use, the action of the stop button may be overridden by depressing it as the temperature control is rotated. Should it be necessary to reset the maximum temperature position please observe the following procedures.

1. Ensure that the hot water system is at normal maximum temperature.
2. Turn the temperature control lever to the full cold position (9 o'clock).
3. Carefully remove the on/off knob.
4. Remove the temperature control lever screws and pull the lever clear.
5. Carefully remove the red pre-set override ring and re-set in the appropriate direction to increase (clockwise) or decrease (anti-clockwise) the temperature where the override button needs to be pressed.
6. Depress the stop button and replace the temperature lever in the full cold position. Push the on/off knob into position fully home, but do not secure with the small screw at this stage.
7. Test the shower by turning it on and slowly increasing the temperature, at the selected point, the button should pop up and prevent further movement.
8. Repeat the above process if the maximum temperature stop button needs further adjustment.
9. Follow steps 19 to 21 to re-fit the temperature lever and on/off knob.

Should the on/off knob need to be removed at any time, turn the knob fully clockwise to the off position. Carefully depress the left hand side of the badge using a suitable tool taking care not to damage the badge or the surrounding plated surfaces of the on off knob. The right hand side of the badge will lift clear of the recess enabling you to remove the badge, giving you access to the small screw fixing the knob in place. Remove the screw and pull the knob clear.

Should unacceptable damage to the badge occur when removing it from the recess, please contact Aqualisa customer services who will send a free of charge replacement.

User guide

Shower operation

Turn the on/off knob FULLY anti-clockwise into the open position to turn the shower on. NB. The on/off knob MUST NOT be used as a method of flow control.

Rotate the temperature control lever, depressing the red temperature limit button if required, to select a comfortable showering temperature using the temperature markings as a guide.

Turn the on/off knob fully clockwise into the closed position after use.

After installation

Run through the Aquavalve 609 Thermo operation with the purchaser and hand them this guide. Complete and post the Aquavalve 609 Thermo guarantee card or register online at www.aqualisa.co.uk.

Cleaning

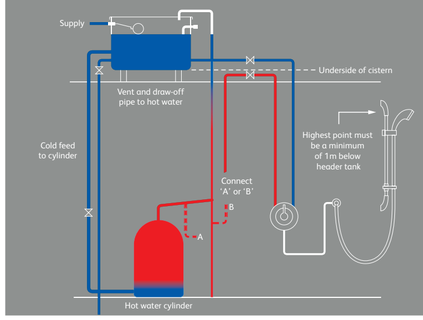
Your Aquavalve 609 Thermo valve should be cleaned using only a soft cloth and washing up liquid.

DO NOT USE ABRASIVE CLEANERS.

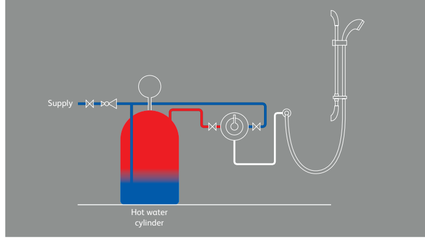
Trouble shooting guide

Symptom	Possible cause	Action
Water output is either all hot or all cold, or cold only.	Reversed inlet supplies	Check that the supplies correspond with the inlet markings
Water output is not hot enough	The temperature of the hot water cylinder is too low	The cylinder temperature should be at least 15˚c hotter than the blend
	Water flow through the appliance is too fast	Check the flow rate recommendations with the heater manufacturer
Flow rate is poor and water temperature is low	Airlock in the water supply	Check that the pipe work is laid in accordance with the correct practices, paying particular attention to potential air-traps
Water temperature regularly swings between hot and cold	Cold water pressure is too high	If the static water pressure exceeds 7 bar (100 psi) install a pressure reducing valve (PRV) in accordance with the installation guide
	The flow regulator has not been fitted	Fit the flow regulator
Poor flow rate	Twisted hose Debris in shower head Debris in filters Debris in cold inlet flow regulator	Check and clear as necessary

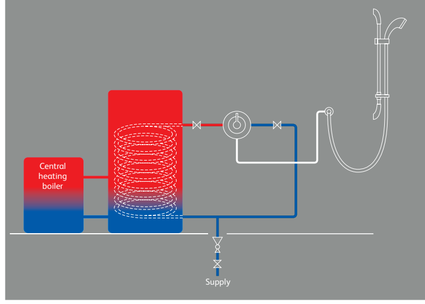
Typical gravity system installation



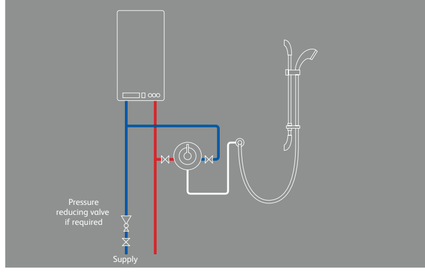
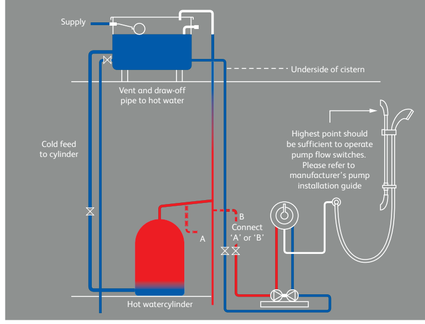
Typical UHW system installation



Typical thermal storage unit system installation



Typical combination boiler installation



Typical pumped system installation