

AQUALISA

# Aquamixa<sup>®</sup>

## Thermo

Thermostatic shower valve with manual bath fill



# Shower systems



Aquamixa Thermo (300.01) with fixed head concealed (99.50.01) and built in fixed head conversion kit (308001).



Aquamixa Thermo (300.01) with fixed head exposed (182723).



Aquamixa Thermo (300.01) with adjustable height head (99.40.01).

# Components



Literature not shown

# Important information

## Introduction

The Aquamixa Thermo is a thermostatic shower unit with manual bath fill designed for deck mounted bath installations; ideal for converting bath taps to a thermostatic shower. The thermostatic shower provides close temperature stability and fail safe protection when installed on approved UK water systems.

Product 300.01 should be selected if installing on a gravity or balanced high pressure system.

For optimum performance a 310.01 Aquamixa suitable for combination boiler systems is supplied with a cartridge which incorporates a flow regulator fitted into the hot inlet port at the end of the T tube of the cartridge.

The regulator is suitable for use with a 24kW (80,000Btu) combination boiler. If the shower is fitted to a 30kW (100,000Btu) boiler, the factory fitted regulator should be replaced with the OLIVE regulator. Similarly, if the shower is fitted to a 35+kW (120,000+Btu) boiler, the factory fitted regulator should be replaced with the BLUE regulator.

If in any doubt as to the boiler rating please contact the appliance manufacturer before the installation commences.

If you have any questions at any stage during installation 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 current Water Supply and Building Regulations.

## 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 Aquamixa Thermo is supplied for connection to conventional supplies with HOT on the LEFT and COLD on the RIGHT when viewed from the front. The Aquamixa Thermo is fitted with standard male threaded tap tails at 180mm pipe centres.

**THE AQUAMIXA THERMO IS NOT SUITABLE FOR REVERSED CONNECTIONS.**

## Isolating valves

Suitable isolation valves such as gate valves must be fitted to both supplies in accordance with the current 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 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.



# Important information

## Siting

The Aquamixa Thermo unit should be located on the bath in an accessible location for future servicing and maintenance.

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 height shower head). 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.

## Pump installation

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

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 not be less than 225 litres (50 gallons). The capacity of the hot cylinder must be capable of meeting the anticipated demand.

## Pressures

The Aquamixa Thermo unit 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.

A suitable PRV is available from Aqualisa.

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

## 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 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 cold feed pipe to the hot water cylinder should be run in 22mm. A typical layout is shown on page 14.

# Important information

## Balanced high-pressure systems

The Aqualisa Thermo cartridge is designed to operate with hot water storage systems up to a maximum pressure of 10 bar. A PRV must be used if either supply exceeds 10 bar. For unvented systems 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 overleaf.

## Combination boiler/multipoint system

This product **MUST NOT** be fitted to an appliance rated at less than 24kW (80,000 Btu).

The Aqualisa Thermo cartridge is designed to operate from the mains at a maximum 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.

For optimum performance the Aquamixa product specifically for combination boiler systems is supplied with flow regulators to control the incoming hot water flow into the cartridge. The thermostatic combination boiler cartridge (PINK) is factory fitted with a YELLOW regulator suitable for a 24kW (80,000 Btu) boiler. The regulator should be changed to suit the relevant rated boiler as listed below:

YELLOW	24KW (80,000 BTU) BOILER
OLIVE	30KW (100,000 BTU) BOILER
BLUE	35+KW (120,000+ BTU) BOILER

Please refer to the installation instructions overleaf for details of how to change the flow regulator.

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. A typical layout is shown overleaf.

## Complementary shower heads

Various shower kits are available to complement the Aquamixa Thermo unit, which should be purchased separately. Please select from the following options:

**Option 1.** Adjustable height head. Choose from Varispray 99.40.01 (compatible with any water system) or Turbostream 99.20.01 (compatible with high pressure or boosted systems only).

**Option 2.** Fixed exposed head. Order product code 182723 which includes the shower head, riser rail and all necessary adaptors and fittings (compatible with any water system).

**Option 3.** Fixed head concealed. Choose from Varispray 99.50.01 (compatible with any water system) or Turbostream 99.30.01 (compatible with high pressure or boosted systems only). A built in fixed head conversion kit, 308001, must be purchased separately.

Please refer to the installation guides supplied with the shower heads for fitting instructions.

If you have any questions regarding the specification of compatible shower heads please contact the Aqualisa customer helpline on 01959 560010.

# Step -by-step instructions



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 and building regulations required to install the product correctly and safely.

Ensure the area around the tap holes is clean, smooth and flat prior to commencing installation.



**IF INSTALLING A 300.01 PLEASE PROCEED TO STEP 10.**

The 310.01 Aquamixa Thermo for combination boiler systems is supplied factory fitted with a YELLOW flow regulator, located in the hot inlet of the cartridge T tube, suitable for use with a 24kW (80,000 Btu) boiler. If fitting the product to a system supplied by a 30kW (100,000 Btu) appliance, the OLIVE regulator should be used. If fitting the product to a 35+kW (120,000+ Btu) appliance, the BLUE regulator should be used.

**1**

If the removal and replacement of the factory fitted regulator is necessary, undo and remove the fixing screw in the centre of the on/off knob and carefully pull the on/off knob clear.

**2**

Ensuring the temperature lever is in the mid blend (12 O'Clock) position, remove the four screws fixing screws and set the lever aside.

**3**

Remove the four screws securing the cartridge assembly into the Aquamixa valve body and remove the cartridge, noting the gasket orientation.

**4**

Remove the flow regulator housing from the rear of the cartridge T tube, using a small flat bladed screw driver if necessary.



**5**

Fit the suitable replacement flow regulator assembly as detailed above, into the cartridge T tube ensuring the 'O' ring faces into the incoming flow of water.

**6**

Refit the gasket to the cartridge ensuring the filter is correctly aligned with the curved cold water port. Reposition the cartridge back into the valve body ensuring the cold port on the cartridge and valve body are correctly aligned.

**7**

Refit the cartridge to the Aquamixa valve body with the cartridge screws sufficiently to create a watertight seal, taking care not to over-tighten.

**8**

Replace the temperature lever in the mid-blend (12 o'clock) position and secure hand tight only.

**9**

Replace the on/off knob onto the Aquamixa ensuring it is turned fully clockwise and secure using the centre fixing screw hand tight only.

**10**

Position the deck rubber over the inlet tails of the Aquamixa Thermo unit and pass the unit through the bath tap holes (two min.  $\varnothing 29\text{mm}$  holes are required at 180mm centres).

**11**

Fit the poly-washer and back nut to each tail ensuring correct alignment of the Aquamixa Thermo unit over the bath. Tighten the back nuts taking care not to over tighten.

**12**

Fit the required outlet system in accordance with installation instructions supplied.



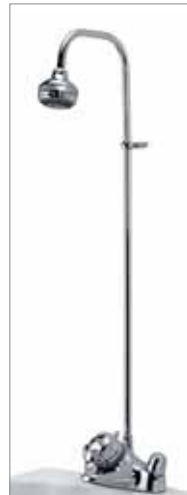
If the Aquamixa Thermo is being fitted with a concealed fixed head it will be necessary to purchase and fit a built in fixed head conversion kit, 308001. The conversion kit elbow is fitted to the Aquamixa Thermo outlet and will take the blended supply back into the wall where suitable pipe work to the fixed head fixing spigot must be constructed.

The 308001 is supplied with a 1/2" - 3/4" adapter which must be fitted to the Aquamixa Thermo outlet using either a 12mm hexagonal key or standard radiator key prior to fitting the elbow.



If the Aquamixa Thermo is being fitted with an exposed fixed head it will be necessary to purchase and fit a 182723 which includes a longer straight rail designed especially for use with the Aquamixa Thermo.

The 182723 is supplied with a 1/2"-19mm adapter which must be fitted to the Aquamixa Thermo outlet, using either a 12mm hexagonal key or standard radiator key, prior to completing the shower kit installation.



13

Connect the hot and cold supplies to the Aquamixa Thermo unit using G 3/4" tap connectors and check for leaks.



14

If the temperature limiting procedure detailed opposite is not required, ensure that the badge recess is horizontal when the control is turned fully clockwise. Ensuring the recess is dry and free of dust, remove the paper backing from the badge and fix firmly into position in the on/off knob badge recess.



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 and push firmly into position.



# After installation...

## Commissioning

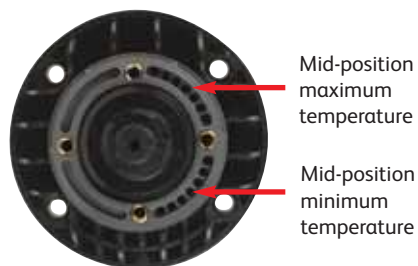
For additional safety, for example when the very young or elderly people will be using the shower, the Aquamixa Thermo incorporates a temperature limiting device enabling you to set minimum and maximum temperature adjustment if required.

Temperature adjustment is limited by inserting the limiting pins provided into the small holes in the face of the cartridge.

The temperature limiting pins are fitted as follows:

1. Carefully remove the on/off knob securing screw and on/off knob.
2. Ensure the temperature lever is set to the vertical position.
3. Remove the four temperature control lever fixing screws and detach the lever.
4. Replace two of the screws in the top and bottom threaded holes of the temperature ring.

5. To set the MAXIMUM temperature, insert a limit pin into the mid-position hole in the upper set of holes as illustrated.



6. Using the 2 screws in the cartridge face as a lever turn the temperature control ring clockwise until a stop is reached.
7. Replace the on/off knob and turn the valve on to check the temperature is at the desired maximum temperature. If not, turn the valve off; reposition the pin in a higher hole and turn on the valve to check the temperature is sufficient. Repeat the procedure as necessary.
8. If a minimum temperature is required, use the lower set of holes in the cartridge face and repeat the above procedure. If no minimum temperature is required, do not position any pins in the lower set of holes.
9. Snap off the pins by levering outwards. Turn the temperature control ring to the vertical position and remove the two fixing screws. Replace the temperature control lever in its original position and fix with the screws hand-tight only.
10. Refit the on/off knob ensuring it's turned fully clockwise. Refit the securing screw hand-tight only. Ensuring the recess is dry and free of dust, remove the paper backing from the badge and fix firmly in position.

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.

**N.B. The on/off knob MUST NOT be used as a method of flow control.**

Rotate the temperature control lever 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.

## Tap operation

The Aquamixa Thermo is fitted with conventional 'non rising spindle' type taps. Turn taps anti-clockwise to fill the bath and turn clockwise to close.

**THE BATH FILL THROUGH THE TAPS IS NOT THERMOSTATIC.**

## After installation

Run through the Aquamixa Thermo operation with the end user and hand them this guide. Complete and post the Aquamixa Thermo guarantee card or register online at [www.aqualisa.co.uk](http://www.aqualisa.co.uk).

## Cleaning

Your Aquamixa Thermo unit should be cleaned using only a soft cloth and washing up liquid.

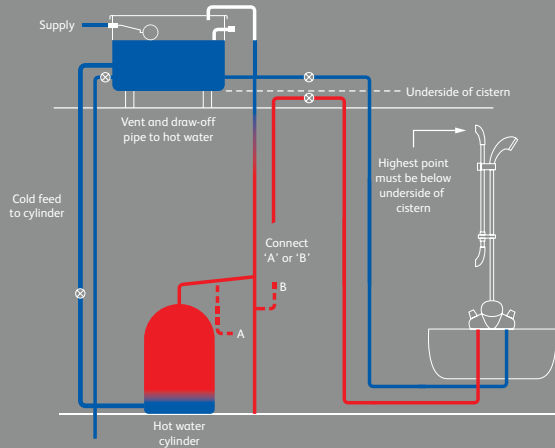
**DO NOT USE ABRASIVE CLEANERS.**

# Troubleshooting guide

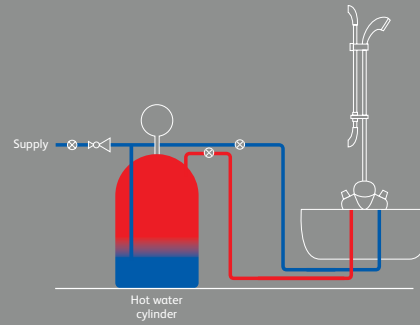
Symptom	Possible cause	Action
Water output is either all hot or all cold, or cold only	Reversed inlet supplies	Check that the supplies are fitted hot/left and cold/right
Water output is not hot enough	The temperature of the hot water cylinder is too low  Water flow through the appliance is too fast	The cylinder temperature should be at least 15°C hotter than the blend  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  The incorrect flow regulator has been fitted (combi system version –310.01 only)  Instantaneous water heater set up incorrectly (combi system version –310.01 only)	If the static water pressure exceeds 10 bar (100 psi) install a pressure reducing valve (PRV) in accordance with the installation guide  Fit the correct flow regulator  Set up the appliance in accordance with the manufacturer's instructions
Poor flow rate	Twisted hose  Debris in shower head  Debris in filters  Debris in hot inlet flow regulator (combi system version –310.01 only)	Check and clear as necessary

# Typical installations

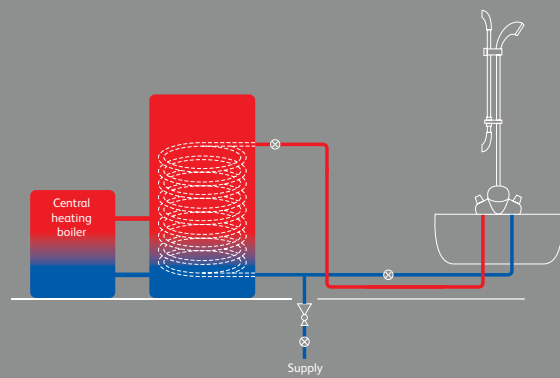
Typical gravity system installation



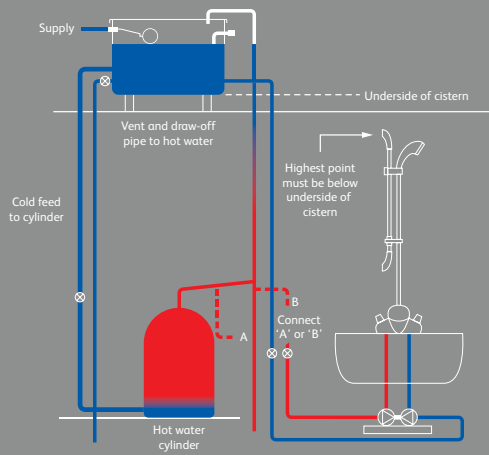
Typical UHW system installation



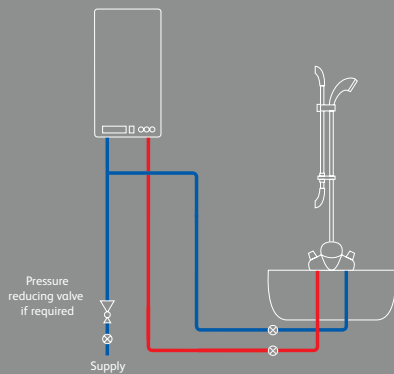
Typical thermal storage unit system installation



Typical pumped system installation



Typical combination boiler installation





# AQUALISA

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

Sales enquiries: 01959 560010

Republic of Ireland 01-864-3363

Customer helpline: 01959 560010

Republic of Ireland 01-844-3212

Brochure Hotline: 0800 652 3669

Website: [www.aqualisa.co.uk](http://www.aqualisa.co.uk)

Email: [enquiries@aqualisa.co.uk](mailto:enquiries@aqualisa.co.uk)



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