INSTALLATION AND USER GUIDE

AQUASTREAM™ POWER SHOWER

AQUALISA

The Waste Electrical and Electronic Equipment (Producer Responsibility) Regulation 2004

This product is outside the scope of the European Waste Electrical and Electronic Equipment Directive as interpreted within the UK.

In the UK this product can therefore be disposed of through commercial non-WEEE waste facilities.

The original manufacturer does not accept any liability under the WEEE directive within the UK.

In other EU countries the WEEE directive may apply and, at end of life, product must be disposed of at a suitable WEEE recycling centre

AQUALISA

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IMPORTANT INFORMATION

Introduction

The Aquastream™ Thermo power shower system is a surface mounted thermostatic shower unit with integral pump suitable for top, bottom or rear entry pipe work.

The thermostatic shower provides close temperature stability and fail safe protection when installed on gravity fed systems.

If you have any questions at any stage during installation then please contact the Aqualisa customer helpline on 01959 560010 for advice.

UNDER NO CIRCUMSTANCES SHOULD AN AQUASTREAM™ BE CONNECTED DIRECTLY TO THE WATER MAINS OR IN-LINE WITH ANOTHER BOOSTER PUMP.

Safety Information

This appliance must only be supplied at safety extra low voltage corresponding to the marking on the appliance.

This appliance is only to be used with the Transformer unit provided. A suitable double pole isolation switch for supply disconnections must be incorporated in the fixed wiring circuit in accordance with current wiring rules.

This appliance can be used by children aged from 8 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 may not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

Maximum inlet pressure 100kPa ((1 bar)(10 metres head) (14.5psi)).

Total Maximum Head 1.5m.

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 Aquastream™ 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 transformer for the Aquastream™ must be installed in an accessible location for servicing and maintenance. The Aquastream™ must not be installed in situations where the ambient temperature is likely to fall below 5°C or rise above 40°C.

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.

Note: the pump incorporates an earth connection for functional purposes only.

Ensure that the conduit is run to avoid the 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.

This product is suitable for domestic use only.

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 Aquastream™ Thermo incorporates 'push fit' type connections suitable for use with 15mm British Standard copper tube (it is imperative that chrome plating is abraded where contact is made with the grip teeth). 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 should be flushed clear of any debris prior to installation of the unit. The Aquastream™ Thermo is supplied for connection to conventional supplies with HOT on the LEFT and COLD on the RIGHT when viewed from the front.

THE AQUASTREAM™ THERMO IS NOT SUITABLE FOR REVERSED CONNECTIONS. THE AQUASTREAM™ THERMO IS NOT SUITABLE FOR STAINLESS STEEL TUBE.

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

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.

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

The Aquastream™ Thermo unit must be sited so that the top of the casing is below the underside of the cistern. The casing must not be sited where it is subjected to continuous spray from the shower head.

Site the transformer within 4 metres cable distance from the Aquastream™ Thermo unit. Ensure that there is free air movement around the transformer housing and that it is located in an accessible, dry location. If the transformer is to be sited in the bathroom area, it must be sited away from the bather behind a screwed panel. Do not fit close to heating or hot water pipes as the transformer has a maximum operating temperature of 40°C. Allow 150mm working end of low voltage cable to project from the wall.

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.

Gravity fed hot and cold supplies

The Aquastream™ Thermo shower system is designed to operate up to a maximum static pressure of 100kPa ((1 bar)(10 metres head) (14.5psi)).

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 Aquastream™ 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.

Long pipe runs 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 unit 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 plastic pipe is used, minimise the number of elbows as the pipe inserts are very restrictive.

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

Declaration of Conformity

Aqualisa Products Limited declares that the Aqualisa Aquastream™ complies with the essential requirements and other relevant provisions of the Low Voltage Directive (2014/35/EU), the EMC Directive (2014/30/EU).

ADJUSTABLE HEAD USER GUIDE

1. Rotate the sprayplate lever clockwise or anti-clockwise to select the desired spray pattern.
When the lever is in the 3 o'clock position when viewed from below, 'Eco' mode is selected. This provides up to 25% water saving.

2. To select the preferred height for the shower head, depress the levers fully to enable the slider to be moved up or down the rail.

3. Angular adjustment is made by carefully but firmly pulling forwards or pushing back the shower head against the ratchet in the holder.

AFTER INSTALLATION

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

CLEANING

Your Aquastream™ Thermo unit should be cleaned using only a soft cloth and washing up liquid.
DO NOT USE ABRASIVE CLEANERS

See important information section.

TROUBLESHOOTING

Symptom	Possible cause	Action
Pump fails to start	Start up sequence and controller configuration in process (controller specific)	Check the fuse in the spur box or plug Check transformer cut-out
Pump runs but performance is poor	Water flow is being impeded	Check for debris in shower head Check that the hose is not twisted
	Shower head set to ECO mode	Check shower head setting
Water output is either all hot or all cold	Reversed inlet supplies	Check that the pipe work is laid out in accordance with the correct practices paying particular attention to potential air traps
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 desired blend

AQUASTREAM™ THERMO THERMOSTATIC INTEGRAL POWER SHOWER

Satin chrome
813.40.01
White/chrome
813.40.21
White
813.40.20

COMPONENTS

Literature not shown

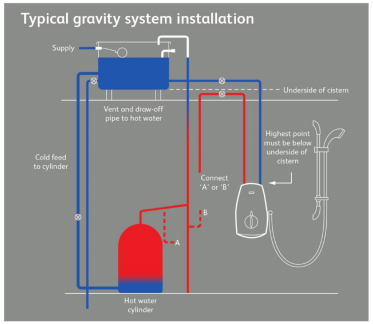
In addition to the guide below it is essential that the written instructions overleaf are read and understood and that you have all the necessary components (shown overleaf) before commencing installation. Failure to install the product in accordance with these instructions may adversely affect the warranty terms and conditions. All showers requiring an electrical connection must be installed by a qualified person following the latest revision of BS 7671 (Wiring Regulations) and certified to current building regulations.

The Aquastream™ Thermo is supplied with universal fixings.

1 Using the template provided, mark out the fixing points and entry point for the low voltage cable and rear entry pipe work as necessary. Remove the template and prepare suitable wall fixings and entry points as required.

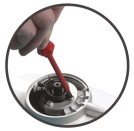
2 Site the transformer within 4 metres cable distance from the Aquastream™ Thermo unit. Ensure that there is free air movement around the transformer housing. Do not fit close to heating or hot water pipes as the transformer has a maximum operating temperature of 40°C. If the transformer is to be sited in the bathroom area, it must be sited away from the bather behind a screw panel. Allow 150mm working end of low voltage cable to project from the wall. Suitable electrical conduit should be used to protect exposed or concealed cables.

DO NOT MAKE ANY ELECTRICAL CONNECTIONS AT THIS POINT.



3 Set the temperature control to full cold (9 o'clock). Insert a small flat headed screwdriver into the screwdriver slot taking care not to damage the surrounding plated surfaces and carefully remove the Aquastream™ Thermo control knob from the unit by pulling it away from the product.

4 Set the control lever to mid-blend (12 o'clock) position prior to removing the three fixing screws and withdrawing the lever. Remove the fixing screw from the top of the Aquastream™ Thermo casing and pull the front cover away from the unit.



The Aquastream™ Thermo has been designed to accept rear entry concealed pipe work or exposed top or bottom entry pipe work.

REAR ENTRY INSTALLATION

5 The 15mm supply pipes must emerge at 90° angles from the finished wall surface spaced at 65mm centres. Ensuring correct alignment of the gripper ring assembly, slide over the projecting pipes flush to the wall surface. Trim the supply pipes to their finished length (18-22mm) using a rotary type cutter.

6 Briefly run the hot and cold supplies to flush out any debris that may be present in the system.

7 Remove the bung from the rear inlets of the Aquastream™ Thermo unit using a suitable long nosed tool.

8 Lubricate the supply pipe ends using a silicone based lubricant and carefully slide the Aquastream™ Thermo unit onto the pipes whilst feeding the low voltage cable through the cable entry point. Secure the unit to the wall using the screws provided (if suitable).
Proceed to step 17.

TOP ENTRY PIPE WORK

9 Remove the rear entry elbows from the top inlets by depressing the retaining catch and pulling the elbow clear. Remove the cover plate from the top of the unit and replace it with the top entry cover plate (with holes) supplied, to allow pipe entry.

10 Screw in the two upper fixing screws leaving the heads projecting about 10mm from the wall surface. Feed the working end of the low voltage cable through the entry point in the back plate. Locate the back plate in position on the projecting screw heads. Ease the back plate downwards and engage the screws in the slots. Fix the lower fixing screw and tighten the upper fixing screws.

11 The pipe insertion depth measured from the point of entry into the top fitting is 160mm at 65mm centres. Where copper tube is to be used, it is imperative that the plating is removed from an area measured 135-155mm to allow for full retention by the gripper rings located in the top fitting.

12 Lubricate the supply pipe ends with a silicone based lubricant and push into the unit fully home.

Should it be necessary to remove the unit from the wall at any time, pipe release tools are located in the inside of the front cover. These should be inserted into the locking collets and depressed as the pipes are withdrawn.

Proceed to step 17.

BOTTOM ENTRY INSTALLATION

13 Prepare the bottom entry ports by holding down the locking collets on the inlet fittings and pulling the bungs free using a suitable long nosed tool.

14 Screw in the two upper fixing screws leaving the heads projecting about 10mm from the wall surface. Feed the working end of the low voltage cable through the entry point in the back plate. Locate the back plate in position on the projecting screw heads. Ease the back plate downwards and engage the screws in the slots. Fix the lower fix screw and tighten the upper fixing screws.

15 The pipe insertion depth measured from the point of entry is 50mm at 65mm centres. Where chrome plated copper tube is to be used, it is imperative that the plating is removed from an area measured 20-35mm to allow for full retention by the gripper rings located in the bottom fitting.

16 Lubricate the supply pipe ends with a silicone based lubricant and push into the unit fully home.

17 To ensure correct orientation of the on/off shower control knob, the on/off valve shaft and on/off knob are manufactured with a flat face which must be aligned before the knob is fitted. Temporarily fit the on/off control knob and rotate fully clockwise to the off position. Turn the supplies on to check for leaks upstream of the unit. If all is sound, turn off the supplies. **In the off position, the graphics will be at the underside of the control knob.**

BEFORE ANY ELECTRICAL CONNECTION IS ATTEMPTED, THE ELECTRICAL SUPPLY MUST BE TURNED OFF AT THE MAIN SWITCH. FAILURE TO DO SO COULD RESULT IN ELECTROCUTION. ALL SHOWERS REQUIRING AN ELECTRICAL CONNECTION MUST BE INSTALLED BY A QUALIFIED PERSON.

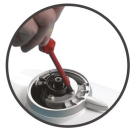
ELECTRICAL INSTALLATION

The pump incorporates an earth connection for functional purposes only.

18 Strip back approximately 10mm of insulation on each of the wires in the low voltage cable. Lift the connector block clear of the mounting pins. Connect the corresponding coloured low voltage wires into the other side of the connection block. Refit the block back onto the mounting pins.

19 Prior to refitting the front cover, temporarily refit the temperature lever and rotate to the mid blend position (12 o'clock). Remove the lever and refit the front cover by locating the bottom of the front cover into the fixing lugs and pushing the front cover fully home. Secure using the fixing screw at the top of the front cover ensuring not to overtighten.

20 Refit the temperature lever in the mid-blend position and secure using the 3 temperature lever screws hand tight only. Refit the on/off control ensuring the 2 flat faces are aligned and push fully home.



21 Means for disconnection must be incorporated in the wiring circuit. Connect the transformer power lead to a double pole 3 amp fused switched spur incorporated in the fixed wiring circuit, in accordance with current wiring rules (refer to safety information section). Ensure that this is located in an accessible, dry location. Should the transformer cable suffer any mechanical damage, it will be necessary to replace the complete transformer assembly.

THE POWER SUPPLY TO THE AQUASTREAM™ THERMO MUST BE ISOLATED BEFORE REINSTATING THE DOMESTIC ELECTRICAL SUPPLY. ALL COPPER PIPE WORK MUST BE CROSS-BONDED AND CONNECTED TO A RELIABLE EARTHING POINT. THIS 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.

SLIDER RAIL INSTALLATION

22 Drill 2 holes up to a maximum of 407mm apart and plug using the fixings provided, if suitable. N.B The rail kit supplied utilises a floating bracket that can be positioned to suit existing screw holes on retrofit installations. Fix the top rail bracket into position using the short wall screw, if suitable.

For retrofit installations we have a range of rails available:

Rail length	Maximum distance between fixing holes	Part No.
880mm	837mm	910887
700mm	657mm	910888
550mm	507mm	910889

Contact our customer service team to order

23 Pinch the side levers of the handset holder and slide onto the rail assembly.

24 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 hose restraint.

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

26 Slide the rail assembly up through the top rail bracket.

27 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.

28 Place the rail end caps into both brackets and push firmly into position. Then, ensuring the hose washer is fitted, attach the hose to the outlet of the unit.

29 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.

Commissioning

BEFORE COMMISSIONING, ENSURE THAT THE POWER TO THE UNIT IS TURNED OFF AS THE PUMP MAY BE SERIOUSLY DAMAGED IF RUN DRY.
Carefully attach the hose to the Aquastream™ Thermo outlet. Hand tight should be sufficient to achieve a seal. Hose washers are supplied and must be used.
ALLOW THE SHOWER HOSE TO HANG DOWN TO ALLOW THE WATER TO DISCHARGE SAFELY TO WASTE AND OPEN THE ON/OFF CONTROL SO THAT THE WATER CAN GRAVITATE INTO THE PUMP TO PROVIDE INITIAL PRIMING. WHEN WATER SHOWS, TURN THE CONTROL OFF.
If the water will not gravitate, fully open the on/off control; hold the hose higher than the Aquastream™ Thermo unit and pour in clean water to prime the pump. When the water overflows, turn the controls off.
CHECK THE INSTALLATION FOR LEAKS.

Temperature limit stops

For additional safety, for example when the very young or elderly people will be using the shower, the Aquastream™ Thermo incorporates a temperature limiting device enabling you to set minimum and maximum temperature adjustment if required. We recommend the MAXIMUM outlet temperature is set to 46°C. Temperature adjustment is limited by inserting the limiting pins provided into the small holes in the face of the cartridge as illustrated in step 4 of the below instruction.
BEFORE CARRYING OUT THE FOLLOWING OPERATIONS THE ELECTRICAL SUPPLY TO THE AQUASTREAM™ SYSTEM MUST BE ISOLATED. THIS CAN BE DONE AT THE FUSED SPUR POWER SUPPLY TO THE TRANSFORMER.

1. Remove the on/off control knob and temperature lever as outlined in steps 3 & 4 in the main fitting instructions.
2. Remove the front casing as outlined in step 4.
3. Refit one of the temperature lever screws into the top threaded hole in the temperature adaptor ring, about 4 turns should be sufficient.
4. To set the maximum desired temperature, insert a limit pin into the mid-position hole in the upper set of holes as indicated.
5. Using the temperature control lever screw to assist purchase turn the adaptor ring clockwise until a stop is reached. Avoid exerting any pressure on the microswitch assembly during this operation.
6. Turn the shower on by holding the on/off control loosely in place. Remove the control by turning anticlockwise. Check that the water is now flowing at the maximum desired temperature. Refit the control and turn the shower off.
7. If the flow is below the desired temperature, the limit pin will need to be repositioned in a higher hole and the temperature control moved to the new stop position. Check the flow temperature and repeat until correct.
8. If the minimum temperature setting is not required, proceed to step 10.
9. To set the minimum temperature, use the lower set of holes and proceed as above.
10. When the desired maximum and minimum temperature stops have been set, turn the temperature control ring to the vertical position and remove the temperature fixing screw. Snap off the pins by levering outwards and replace the front casing as outlined in step 19 of the installation instructions.
11. Refit the temperature control lever in the vertical position ensuring the fixing screws are hand tight only. Refit the on/off knob ensuring the flat face on the on/off shaft is correctly aligned with the on/off knob flat face and push fully home.

Mid-position maximum temperature

Mid-position minimum temperature

User guide

Shower operation
Turn the on/off knob anti-clockwise to the 'Normal' flow position which will automatically start the pump operation. For increased flow and pressure continue to turn the control knob anti-clockwise to the 'Boost' position.

Normal Boost

Turn the control knob fully clockwise to turn the shower off.
When set vertically, the temperature lever is in the mid-blend position, the hot and cold supply temperatures will dictate the actual heat setting in this position. Temperature adjustment is made by rotating the lever according to the red and blue temperature markings.
The maximum operating periods for this shower are 15mins on, 45mins off.