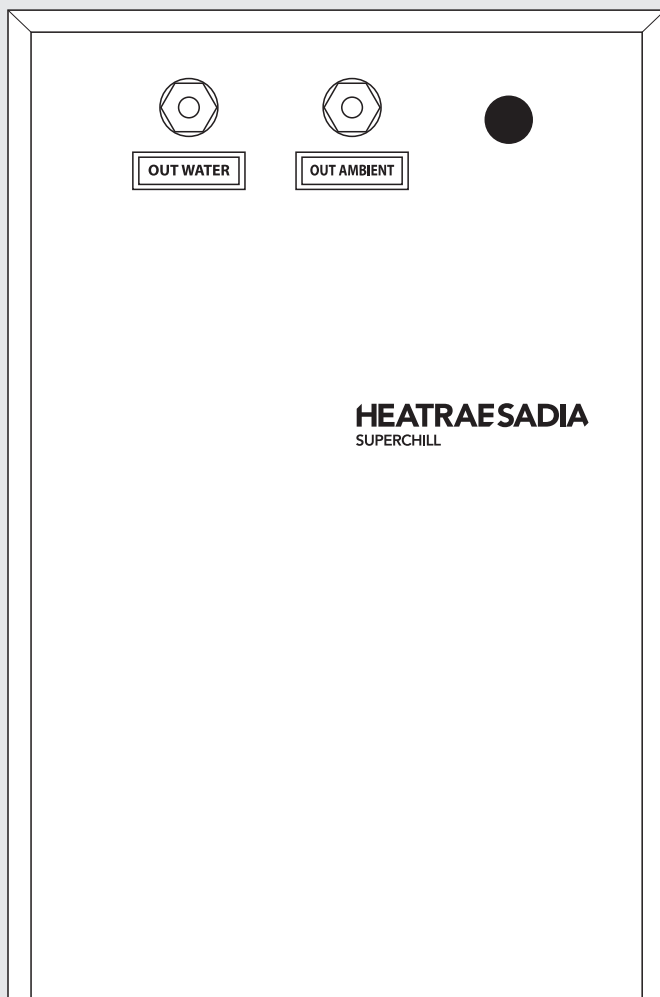


HEATRAESADIA

SMARTER | CLEANER | WARMER

SuperChill 30B Installation and user manual



The SuperChill unit must be installed and commissioned by a competent person. Please read and understand these instructions before installing the SuperChill unit. Following installation and commissioning, the operation of the SuperChill unit should be explained to the user and these instructions left with them for future reference.

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 shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

The SuperChill unit does not contain any substances harmful to health; it does not contain any asbestos.

PACK CONTENTS

- SuperChill 30B
- 3 pin Plug & 2 m cable
- Pipe & Connections
- Pressure reducing valve

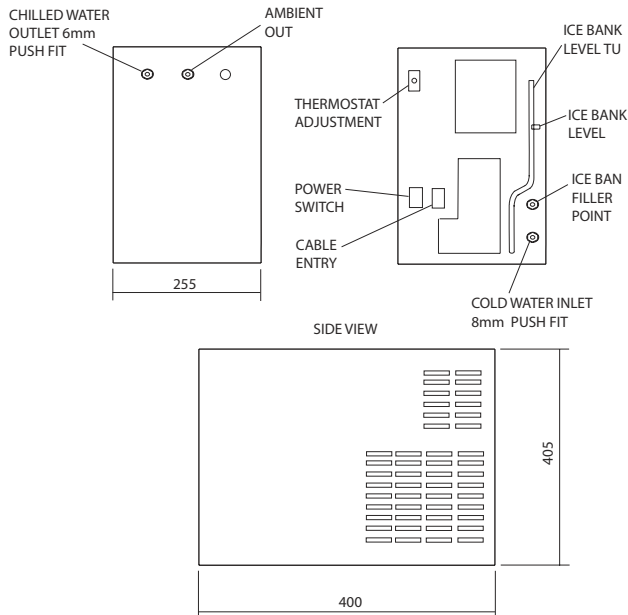
TECHNICAL DATA

Electrical rating	180W/196W 230/240V
Compressor power	1/12 HP
Chilled water output.....	30 l/hour (6.6 gal/hour)
Nominal water outlet temperature	10°C
Weight (full).....	27kg
Rated pressure	0.3 MPa (3.0 bar)
Minimum recommended supply pressure.....	0.1 MPa (1 bar)
Refrigerant gas/gas charge weight.....	R134A/140g
Operating temperature range.....	min. 10°C/max 45°C

1.0 IMPORTANT INSTALLATION POINTS

- 1.1 If the water chiller has been laid down or turned upside down during transit or installation it should be allowed to stand for 8 hours in an upright position before commissioning.
- 1.2 The chiller must be fitted with the supplied 3.0 bar pressure reducing valve.
- 1.3 Adequate ventilation must be allowed through the chiller cabinet. DO NOT obstruct the ventilation louvres. If installing in a closed cabinet adequate ventilation must be provided by fitting louvre grills to the cabinet.
- 1.4 The condenser assembly should be periodically cleaned to prevent a build up of dust or dirt on the cooling fins.
- 1.5 The chiller must be installed vertically on a level surface.
- 1.6 If you have purchased an inline filter with your Superchill, it should be incorporated in the cold water supply to the unit. The filter cartridge must be periodically replaced to ensure its continued efficient operation. Replacement filter cartridges should be of the same manufacture and type as that originally fitted.

FIGURE 1: GENERAL DIMENSIONS & FEATURES



2.0 INSTALLATION - GENERAL REQUIREMENTS

- 2.1 National Wiring rules may contain restrictions concerning the installation of these units in bathrooms.
- 2.2 The unit should be vertically mounted on a level surface. Four mounting feet are provided (make sure the unit is resting fully on all four supporting feet).
- 2.3 Ensure the supporting surface is of sufficient strength to support the full weight of the unit (see Technical Data).
- 2.4 Enough space should be left either side of the unit for adequate ventilation. The sides should be a minimum of 60 to 70mm from any wall or partition. If building into an enclosed cabinet ensure that adequate ventilation is provided into the cabinet by the addition of suitable louvre panels.
- 2.5 The water chiller must be installed inside a building, DO NOT install outside or in a position where it could be influenced by inclement weather conditions.
- 2.6 DO NOT install where the unit may be exposed to extremes of temperature (minimum operating temperature 10°C, maximum 45°C) or in direct sunlight.

3.0 INSTALLATION - ELECTRICAL REQUIREMENTS

WARNING: This appliance must be earthed. It is suitable for a.c. supply only. Disconnect the electrical supply before accessing the cabinet. Installation must be in accordance with the current I.E.E. Wiring Regulations.

- 3.1 The unit is supplied fitted with a 2m 3 core 1.5mm² flexible cable. The electricity supply should be fused 3 Amp. Connection to the electricity supply must be via a double pole isolating switch with a contact separation of at least 3mm in both poles. Refer to the schematic wiring diagram below.
- 3.2 The wires are colour coded as follows:


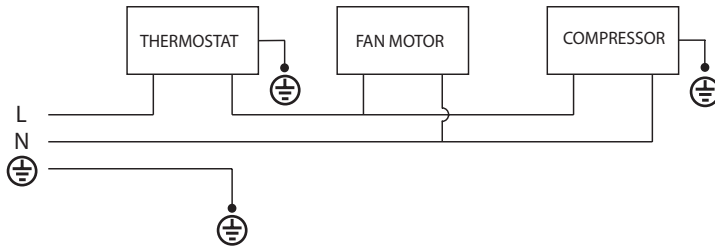
Green and Yellow	EARTH	
Brown	LIVE	(L)
Blue	NEUTRAL	(N)

FIGURE 2: SCHEMATIC WIRING DIAGRAM



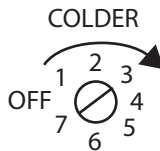
4.0 INSTALLATION - PLUMBING REQUIREMENTS

- 4.1 The mains water supply pressure must be a minimum of 1.0 bar and the flow must be more than 2.0 l/min. The pressure reducing valve (supplied) must be fitted to the water supply to the chiller, to ensure that the water supply does not exceed 3.0 bar.
- 4.2 It is recommended that a WRAS listed isolating valve is incorporated in the water supply to the water chiller (not supplied).
- 4.3 The inlet filter assembly is not supplied with unit (accessory 95 970 129). It can be mounted on the side of the SuperChill unit or an adjacent vertical surface. The filter assembly must be installed vertically and sufficient room must be allowed for removal and replacement of the filter cartridge. Connection of the water supply to the chiller and filter assembly is by means of an 8mm outside diameter flexible WRAS listed plastic tube (supplied). The tube must be pushed fully home into the inlet fittings to ensure a water-tight joint.
- 4.4 Chilled water is dispensed through the push button spout, not supplied (accessory 95 970 159). This must be mounted such that the water is discharged into an existing sink or a suitable drip tray. A drip tray with a drain connection is recommended - Heatrae Sadia accessory code 95 970 123 can be used for this purpose.
- 4.5 Connection between the SuperChill unit and outlet spout is by 6mm outside diameter flexible WRAS listed plastic tube (supplied). The tube should be insulated by threading it through a length of the flexible polyurethane insulating tube supplied.
- 4.6 A 'No shock' water hammer arrestor is available as an accessory, code 95607884. This should be used in applications where the inlet water pressure exceeds 3 bar and is installed between the water supply and the water inlet on the unit via 8mm push fit connectors observing flow direction.

5.0 COMMISSIONING

- 5.1 DO NOT switch on the electrical supply until the unit and ice bank have been filled with water and checked for leaks.
- 5.2 Fill ice bank as follows. Push the supplied 8mm tube (water supply) into connection marked "FILL ICE BANK" turn water supply on, this will let water enter in the ice container. As container fills you will see the clear tube at the rear of unit will start to fill, when it reaches the level notch (L) close tap. Remove 8mm tube and insert red 'T' cap, push 8mm tube water supply into connection marked "IN WATER BTM".
- 5.3 Check that all installation, electrical and plumbing requirements have been met.
- 5.4 Check that all water and electrical connections are tight.
- 5.5 Turn on the water supply and operate the outlet tap (where fitted) until water flows smoothly from the outlet. Flow will initially be erratic as air is purged from the cooling coil. It is recommended that the water is allowed to flow for a few minutes to flush through the filter, internal pipes, tank and fittings of any air, dust or debris that may have accumulated during transit or installation.
- 5.6 Check that the filler spout (where fitted) is positioned at an angle that does not cause water to over-spill the sink or drip tray.
- 5.7 The flow of the water from the outlet can be adjusted if necessary. To do this unscrew the hexagonal nut locating the push button and remove. Remove the push button to reveal a slotted adjustment screw. Rotate the adjustment screw anti-clockwise to increase the flow or clockwise to decrease the flow. When the required flow is achieved, replace the push button and secure using the hexagonal nut.
- 5.8 Adjust the thermostat by turning the adjustment screw clockwise with a small screwdriver (thermostat located on rear panel of unit) to position 3 or 4.

FIGURE 3: THERMOSTAT ADJUSTMENT



- 5.9 Switch on the electrical supply, check the compressor and cooling fan come into operation. Allow the unit to run for several minutes to cool the stored water (time will depend on thermostat setting and temperature of mains water and the surrounding air).

- 5.10 Check the temperature of the dispensed chilled water. If necessary adjust the thermostat; clockwise for a cooler temperature, anti-clockwise for a warmer temperature. The optimum outlet temperature should be approximately 10°C.

6.0 MAINTENANCE

Little maintenance is required, however the following actions should be periodically carried out to ensure efficient operation. Switch off and disconnect the electrical supply before removing the casing for any internal maintenance.

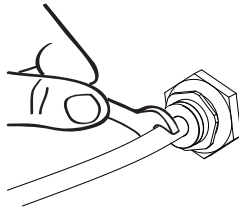
6.1 EXTERIOR CLEANING

- 6.1.1 The exterior casing should be wiped over with a soft, damp cloth. If necessary proprietary cleaning agents can be used but these must not be solvent based or abrasive.
- 6.1.2 Clean the outlet spout (where fitted) with a soft, damp cloth. In extreme circumstances evaporation salts may have accumulated around the outlet points. This should be cleaned with a proprietary scale remover approved for sanitary ware. Ensure all traces of the cleaner are removed before drinking from the outlet(s) again.
- 6.1.3 If dispensing over a drip tray remove the drip tray grating and ensure there are no trapped materials in the drain connection. Clean the interior of the tray and the drip tray grating. Replace grating.

6.2 INTERIOR CLEANING

- 6.2.1 Turn off the water and electrical supplies to the unit. Disconnect the flexible inlet and outlet tubes from the pushfit connections on top of the casing by pressing onto the lock ring with an 8mm spanner whilst pulling on the flexible tube (see Fig. 4 below).

FIGURE 4: RELEASING A PUSH FIT CONNECTION



- 6.2.2 Unscrew the casing. The panel is secured by ten screws, four on each side panel, two on the rear panel. Remove the casing to gain access to the inside of the unit.

6.2.3 Remove any dust or dirt using a vacuum cleaner. Particular attention should be paid to the inside of the louvre grills and the condenser fins. **DO NOT** use a metal brush to clean the condenser fins as they may be damaged.

6.3 DISINFECTING

It is recommended that the chiller is disinfected on a regular basis to prevent the build up of contaminants.

WARNING Many disinfecting products are acid or alkali corrosive substances. Always follow the manufacturers instructions for use and DO NOT exceed the recommended dosing concentrations or times. Always wear suitable protective clothing, disposable gloves and safety glasses are a minimum requirement for most solutions.

- 6.3.1 Prepare the disinfecting solution in accordance with the manufacturers instructions. At least 5 litres of mixed solution will be required.
- 6.3.2 If fitted with a chlorine filter the filter cartridge must be bypassed.
- 6.3.3 Connect the container holding the disinfecting solution to the inlet of the water chiller via a small pump.
- 6.3.4 Start the pump and operate the outlet to allow the disinfecting solution to enter the chiller. Allow approximately 4 litres of solution to enter the chiller to ensure the chilling coil and all internal pipework is filled with disinfecting solution. Close the outlets and stop the pump.
- 6.3.5 Allow the solution to stand within the chiller for the recommended dosing time (refer to manufacturers instructions).
- 6.3.5 Disconnect the disinfecting solution filling arrangement. Reconnect the chlorine filter or fit a new filter cartridge. Reconnect the mains water supply and turn it on.
- 6.3.6 At least 15 litres of water should be flushed through the chiller and outlets to ensure all traces of the disinfecting solution are removed from the system before further use for drinking water.
- 6.3.7 Other disinfecting processes may be suitable (e.g. ozone treatment), consult the manufacturers for further advice.

6.4 EMPTYING ICE BANK CONTAINER

- 6.4.1 Disconnect mains cable from the socket. To empty the ice bank you can unclip the clear tube at the rear of the unit: Allow the water to flow from the unit into a receptacle or drain. Once flow has stopped replace the tube back into clips.

7.0 FAULT FINDING

The SuperChill unit should give trouble free operation, however should a problem occur, the tables below should enable most faults to be identified with ease. Fault finding should be carried out by a competent person and any replacement parts used should be authorised Heatrae spare parts.

SYMPTOM	POSSIBLE CAUSE	ACTION
The compressor will not start	1. No power to unit	1. Check the power supply is not faulty and is switched on
	2. Thermostat set to the OFF or minimum cooling position	2. Turn thermostat to ON and adjust to cooler temperature
	3. Thermostat fault	3. Replace thermostat
	4. Wiring fault	4. Check all wiring connections are secure and correctly made (refer to Wiring Diagram page 5)
	5. Compressor fault	5. Replace compressor
Water is ice cold but operates excessively	1. Poor ventilation	1. Ensure the unit is 60-70mm from the wall and ventilation slots are clean and unobstructed
	2. The condensor fins are dirty or airflow over condensor is impaired	2. Clean the condensor (see Section 6.2)
	3. Thermostat set to maximum cooling position	3. Adjust thermostat to a less cool temperature
	4. Faulty thermostat	Replace thermostat
	5. Thermostat sensing probe not inserted into the cold water tank correctly	5. Ensure thermostat sensing probe is pushed fully into pocket in tank
	6. High ambient temperature (>45°C)	6. At high ambient temperatures it is normal for the unit to work continuously
Compressor works continuously, but water is not cold	1. Gas leak from the cooling system	1. The remaining gas must be emptied and the leak must be sealed. The unit should then be recharged with the correct quality of gas (refer to Technical Data on page 2 or data plate on the appliance) NOTE: This action must only be done by a qualified person.
	2. Faulty compressor	2. Replace compressor
	3. Cooling fan does not work	3. Replace cooling fan
	4. Water low in ice bank	4. Top-up or replace ice bank (see page 6)
Unit works excessively, but water is not cold enough	1. Cold reservoir is frequently exhausted by heavy usage	1. The units cold water output is being exceeded (see Technical Data page 5), Consider a larger unit or installing another nearby
Water is cold, but unit is excessively noisy	1. Pipe vibration	1. Check that water pipes are not vibrating against other parts of the unit, adjust their position if necessary
	NOTE: This unit contains a compressor and the fan so some noise will be normal when these are in operation.	
Poor water flow	1. Low water pressure	1. Ensure water pressure is a minimum of 1 bar
	2. Water filter clogged	2. Check and , if necessary, change water filter cartridge
	3. Thermostat sensor not inserted into the housing of the cold water tank causing water in tank to freeze	3. Switch off unit and allow to thaw. Insert thermostat sensor correctly into housing in tank.

8.0 SPARE PARTS

The following comprehensive list of spare parts are available for your SuperChill water chiller. Please refer to the Rating Label on the side of your water chiller before ordering to ensure the correct spare part is obtained.

DO NOT REPLACE WITH PARTS NOT RECOMMENDED BY HEATRAE SADIA - THIS WILL INVALIDATE YOUR GUARANTEE AND MAY RENDER THE INSTALLATION DANGEROUS.

DESCRIPTION	CODE NO.
Counter mounting push button spout assembly.....	95 604 671
Motorised fan.....	95 607 905
8mm "push fit" elbow.....	95 607 908
Thermostat.....	95 612 714
Electrical cable with moulded plug.....	95 612 679
Agitator pump.....	95 607 906
Pressure reducing valve.....	95 605 024
PE Tube 8x6.....	95 607 907
PE Tube 6x4.....	95 607 247
6 x 1/8 bsp "push fit" connector.....	95 607 326

9.0 USER INSTRUCTIONS

- 9.1 The SuperChill water chiller cools and stores water at the temperature set on the adjustable thermostat. This can be set to give temperatures in the range of 4 to 12°C. To avoid any risk of freezing when the water chiller is not in use for long periods during the winter months, set the thermostat to a higher position.
- 9.2 If the SuperChill water chiller is fitted with an in-line filter that will remove tastes, odours and particles from the water supply, the cartridge will require periodic replacement to remain effective. This period will depend on the water usage, however a period of six to twelve months is recommended. Replacement of the filter cartridge by competent personnel is recommended. Only replace the filter cartridge with one of the same design.
- 9.3 Chilled water is dispensed by pressing the chromed push button on the front of the outlet spout. Water from the spout should be dispensed into suitable cups, jugs or carafes. (refer to paragraph 5.7 for flow adjustment instructions)
- 9.4 A cup dispenser is available as an accessory, code 95 970 127. This can dispense standard plastic or paper cups with a rim diameter of between 70 and 85mm.
- 9.5 To ensure the SuperChill water chiller continues to operate at its optimum performance it should be periodically maintained in accordance with the instructions given under the Sections headed 6.0 MAINTENANCE.

9.0 GUARANTEE

The SuperChill water chiller is guaranteed for a period of two years from the date of purchase provided:

1. The unit has been installed in accordance with these instructions and all necessary inlet controls have been fitted correctly.
2. Any valves or controls are of Heatrae Sadia recommended type.
3. The unit has not been tampered with and has been regularly maintained as detailed in these instructions.
4. The unit has been used only for chilling potable water. The unit is not guaranteed against damage by frost or due to the build up of scale. The guarantee does not cover the filter.

10.0 ENVIRONMENTAL INFORMATION

This product and its packaging is manufactured from many recyclable materials. At the end of its useful life it should be disposed of at a Local Authority Recycling Centre to realise the full environmental benefits. The cooling gas used is CFC free, refer to the data label in the rear of the unit for full details of the gas used. This guarantee does not affect the statutory rights of the consumer.

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Almondsbury, Bristol, BS32 4TF
T: 01454 620500

William Wilson Ltd
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Alternatively contact your local supplying
merchant or wholesale branch.