

MODELS

REMOTE WATER CHILLER

RBA2750-031

Remote Water Chiller 30 LPH [shown]

RBA2750-031-001

Remote Water Chiller 30 LPH with 1.7m cable



As improvements in the design and performance of RBA products are continuous, specifications may be subject to change without notice. The illustrations and descriptions herein are applicable to production as of the date of this Installation Instructions Sheet. Revised 01/25 © 2025 by RBA Group II/Model RBA2750-031/0125

Technical Requirements

- Please leave this documentation with the owner of the fixture when finished
- Please read this entire booklet before beginning the installation.
- Check your installation for compliance with plumbing, electrical and other applicable codes. Unit to be installed in accordance with AS3500.1 & AS3500.2 and other local codes.
- Provide 102mm minimum clear space on fixture sides to allow for proper ventilation through cabinet louvers.

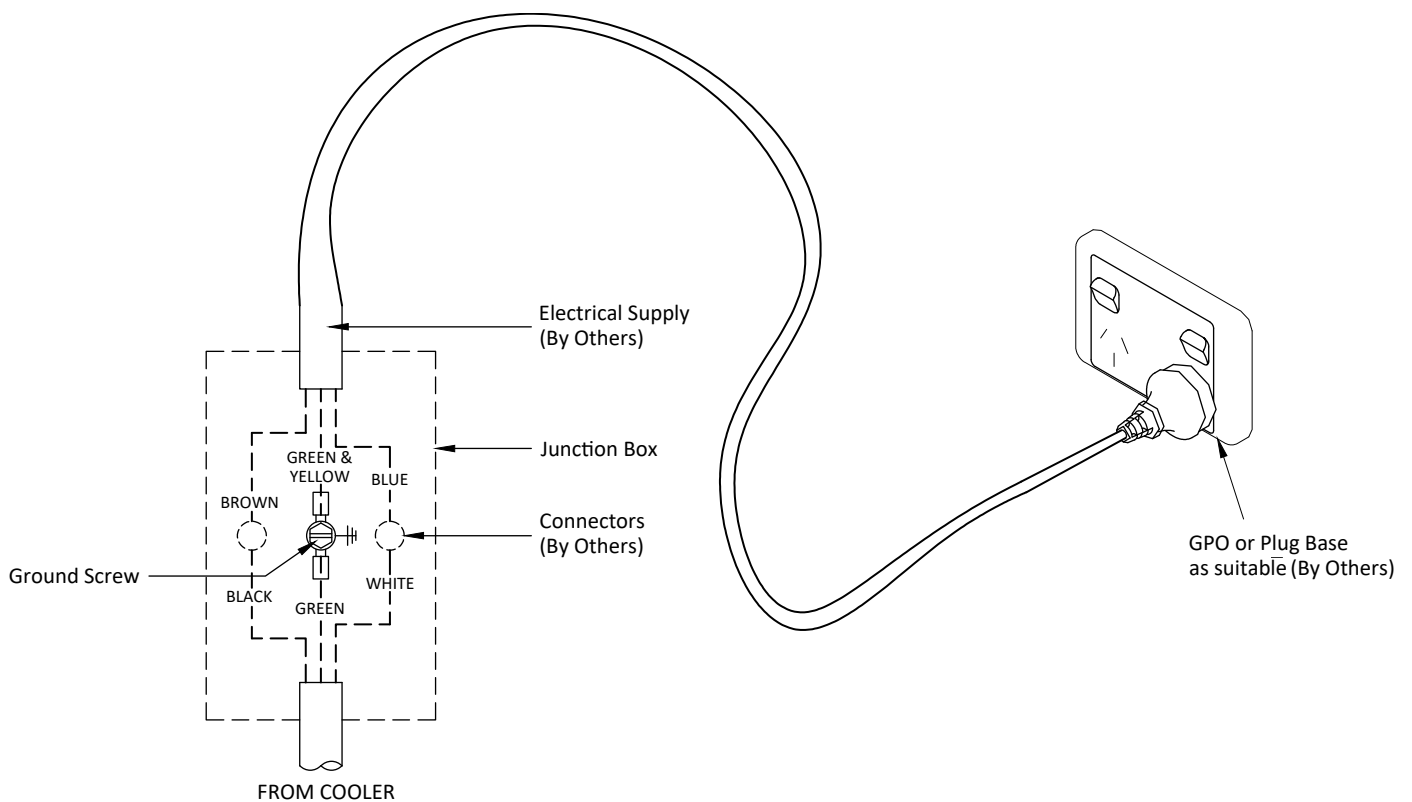
Hydraulic Requirements

- Operating fixture distance: 2m max
- Operating pressure: 200-500kPa
- Inlet: Plastic G1/2B
- Outlet: Plastic G1/2B
- Water supply temperature: 4 -30°

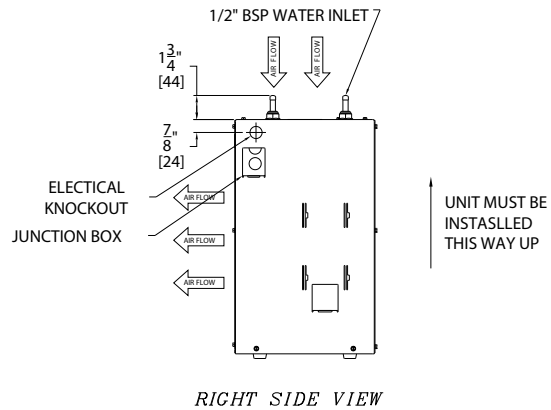
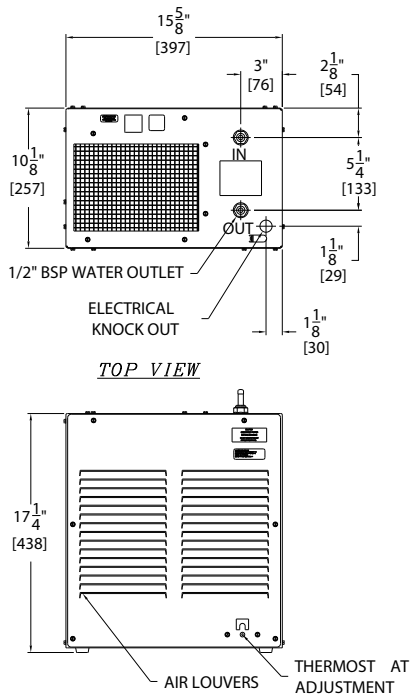
Electrical Requirements

Electrical connection is to be made up by a licenced electrician as per the wiring diagram below. Do **NOT** wire compressor directly to the power supply.

- Power: 220VAC, 50HZ, Single Phase
- Connection Diagram:



Rough-in and Dimensional Drawing



Installation

1. Remove Red Caps from the IN and OUT copper tubes.



2. Connect 1/2" BSP adaptors [supplied]



3. Locate chiller where there is 102mm of space in front and above the chiller for proper ventilation.
4. Remove front panel of chiller and put in a safe place.
5. Connect the water supply stop [by others] to the inlet on top of the chiller. Make sure the water supply lines are thoroughly flushed of any debris before connecting to chiller.
6. Thoroughly flush the water supply lines of any debris before connecting to chiller, connect the water supply stop valve [by others] to the inlet on the top of the chiller.

7. Connect the outlet on top of the chiller to the fixture[s] requiring chilled water. All tubing supplying chilled water must be covered with appropriate insulation to maintain temperature and avoid condensation.
8. Tubing connections to fixtures should be direct and no longer than 2 metres.

Start up

1. Before connecting power supply, but after thoroughly flushing the supply line and connecting it to the chiller, turn on building water supply and check all connections for leaks.
2. Air within the water chiller system or the structure supply piping will cause an irregular outlet stream until purged out by incoming water. Covering the outlet of fixture to which chiller is connected with a clean cup [or similar object] when first activating water chiller to prevent excessive splashing. Activate fixture valve until steady water stream is achieved.
3. Recheck all water connections with water flowing through system for leaks.
4. Make sure the supply power is off. Make the necessary electrical connections [per the chiller data label] including the ground connection.
5. Reinstall front panel with six screws.
6. Adjustment of cold water thermostat.

Cleaning & Maintenance Guide

1. Motors have lifetime lubrication and do not require scheduled maintenance.
2. Excess dirt or poor ventilation will cause the compressor overload protector to turn the compressor off and it will cycle on and off with no cold water coming out of bubbler. Periodically clean the condenser fins and cabinet ventilation louvers with a vacuum cleaner, air hose or brush. In environments where dirt and dust is more prevalent, clean more frequently.

Troubleshooting

Before making any of the repairs listed, make sure the water chiller is disconnected from the electrical supply and the water supply valve is shut off.

Problem	Probable Cause	Solution
Adjustments	Cold Water Thermostat	The water temperature can be adjusted using a slotted screwdriver and turning clockwise to make colder and counterclockwise to make warmer.
	Compressor Runs – Water is Warm	<p>Loss of refrigerant</p> <p>Fan motor</p> <p>Refrigerant charge</p>
Compressor Does Not Run	Electrical supply for power	Check the electrical supply for power and correct voltage. The incoming voltage must be within 10% of the rated voltage on the serial nameplate.
	Cold thermostat	If the cold thermostat capillary bulb loses charge or becomes kinked it will fail in the open position causing a disruption of power to the compressor. Unplug the water chiller and using an ohmmeter to check for continuity.
	Loose wires	Check for loose wires within the compressor box. The incoming power leads must be connected to the overload relay.
	Wiring harness plug	If all components check positive for continuity then test the wiring harness plug for continuity to see if there is a broken wire within the wiring harness insulation.

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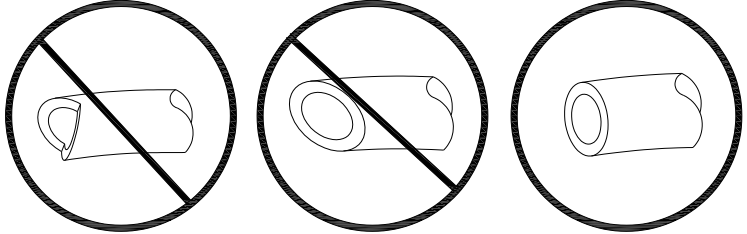
Compressor Cycling On Overload Protector	Dirty condenser or a blocked fan	A dirty condenser or a blocked fan will cause a high head pressure and frequent cycling of the overload protector.
	Incoming voltage	Check the incoming voltage to make sure it is within 10% of the serial nameplate rating.
	Restriction or moisture in the system	A restriction or moisture in the system will also cause intermittent cycling. A certified refrigerant technician should be contacted in this situation.
Noisy operation	Fan blade	Check to make sure the fan blade is rotating freely.
	Compressor mounting	Check the compressor mounting to make sure the pins and clips are not rattling. If the compressor appears to be noisy internally, it must be replaced.
Restricted Or No Water Flow	Stop valve	Ensure water supply service stop valve is fully open.
	Flow pressure	Verify minimum 200 kPa supply line flow pressure
	Outlet tubing	Check for twists or kinks in outlet tubing.
	Foreign material	Ensure fixture to which chiller is attached is not clogged with foreign material.
	Water frozen	The water chiller may also develop a freezing condition in which the water will become frozen inside the evaporator coil. This indicates a refrigeration problem or thermostat failure in which case the water chiller needs to be checked by a qualified technician.

Push-in Fitting Installation

Note: Fittings and tube should be kept clean, bagged and undamaged prior to installation.

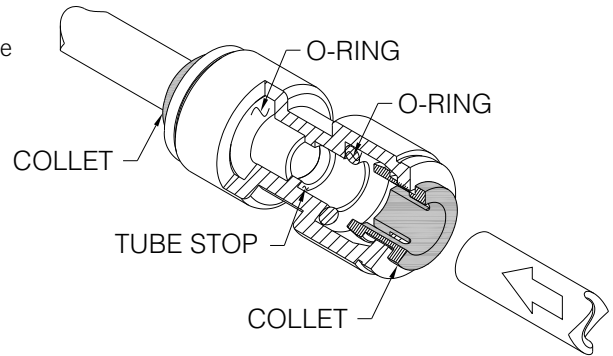
To cut tube

Cut to fit length of 1/4" PE tubing and remove any burrs or sharp edges. Ensure that the outside diameter is free from score marks. Tube ends should be square.

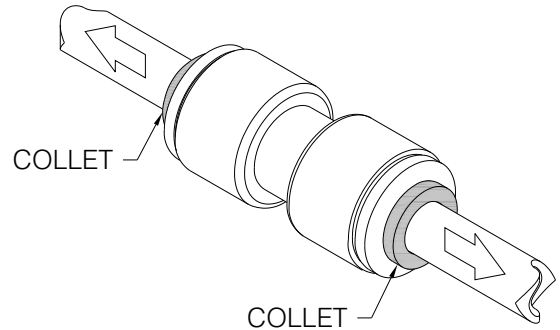


Inserting the tube

1. Firmly and fully insert the tubing end into the push-in fitting up to the tube stop located approximately 1/2" [13mm] deep.



2. Pull on the fitted tubing to ensure it is secure. Tube should not come free from the fitting. Water test the connection assembly prior to leaving the site to ensure there are no leaks.



Disconnecting the tube

To disconnect the tube from the fitting ensure that the water line is depressurised. Push collet square towards the push-in fitting body and hold. While holding the collet in, pull on the PE tubing to remove from the push-in fitting.

