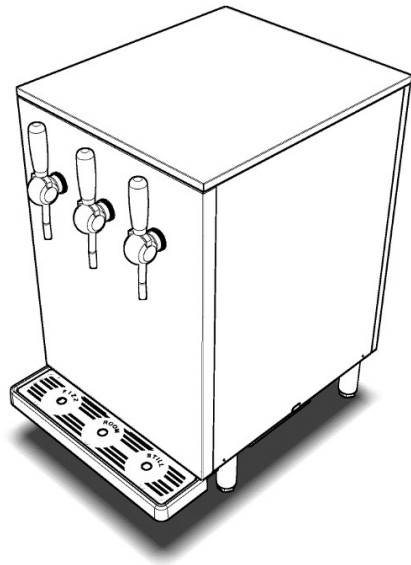


# S18 Countertop

## Product Manual

Filtered Cooler Carbonator



4B0004



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# Introduction and Specification

## Contents

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## Introduction

The S18 is a high-capacity cooler carbonator. The unit is designed to deliver a choice of filtered chilled and ambient still water and chilled carbonated water.

The unit should be isolated from the electricity supply before removal of any covers. Great care must be employed when working with high pressure carbon dioxide, and in no cases should the maximum operating pressure of 4bar be exceeded. The over counter unit uses R290 (Care 40, Propane) refrigerant. Below are some safety warnings which the end user must adopt to mitigate the risk of unsafe conditions arising.

## Specification

<b>Dimensions</b>	D – 23.6" (600 mm) W – 17.2" (436 mm) H – 27.6" (700 mm)	<b>Compressor</b>	Huayi NUY70NRa
<b>Dry Weight</b>	106 lbs (48 Kg)	<b>This product contains fluorinated greenhouse gas with a GWP of 1300 in a hermetically sealed system.</b>	
<b>Wet Weight</b>	154 lbs (70 Kg)		
<b>Supply</b>	115 Vac 60Hz	<b>Refrigerant</b>	R290, 1.8oz (50g)
<b>Rated Input</b>	920 W	<b>Climatic Class</b>	N
<b>Rated Current</b>	8A	<b>Potable water inlet pressure</b>	40 psi (2.67 bar) min 60 psi (4.14 bar) max
<b>Fuse Rating</b>	N/A	<b>Nominal ice bank</b>	24 lbs (11 kg)
<b>CO2 Pressure</b>	55 psi (3.8 bar)		

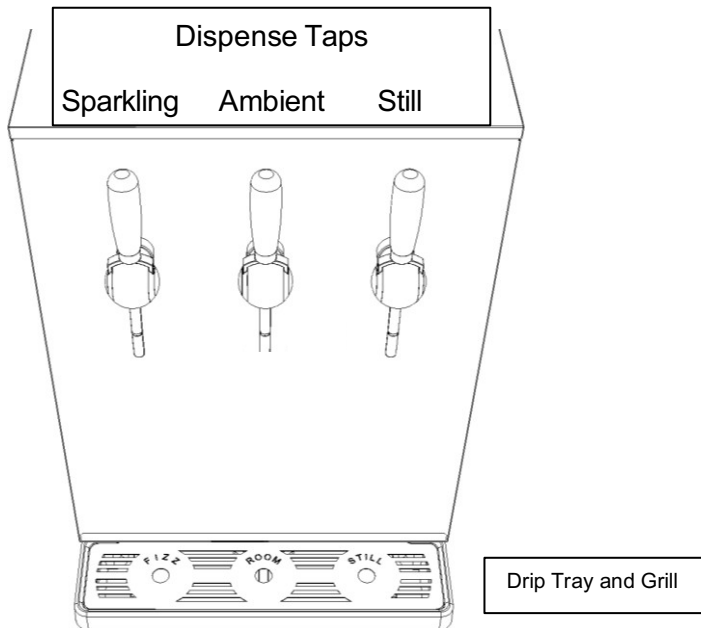
# Installation and Commissioning

## Unit Contents

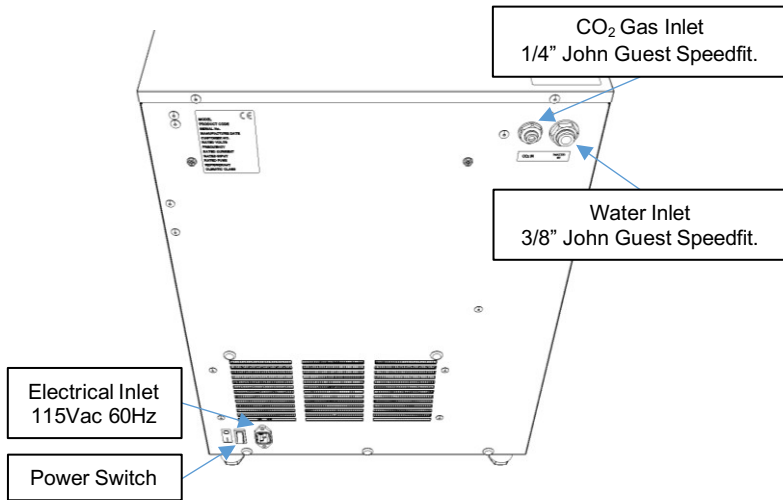
Each S18 is supplied with the following:

- 10ft power cord
- Air filter and cartridge
- Air box (supplied loose for fitment during installation)
- Drip tray and grill (supplied loose for fitment during installation)
- Installation kit containing:
  - CO<sub>2</sub> gas regulator
  - 6ft x 1/4" gas line (Blue)
  - 6ft x 3/8" water line (Grey)
  - Flowmeter operation instructions
  - 2 x AAA batteries (For the flowmeter)
  - 6ft x 3/8" John Guest tubing
  - Assorted spare John Guest fittings

## Unit Overview



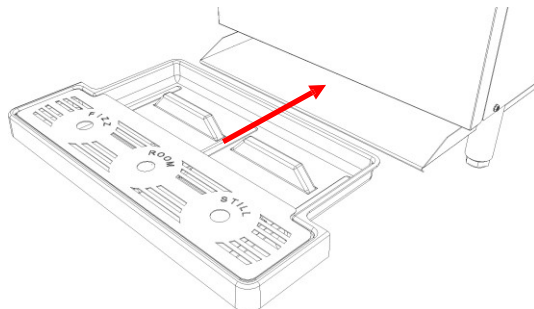
## Installation and Commissioning



The unit must be installed by a competent person, on a firm level surface capable of supporting the weight of the machine, when the bath is filled. Make all connections for water, gas and electricity, but do not turn these on at this stage.

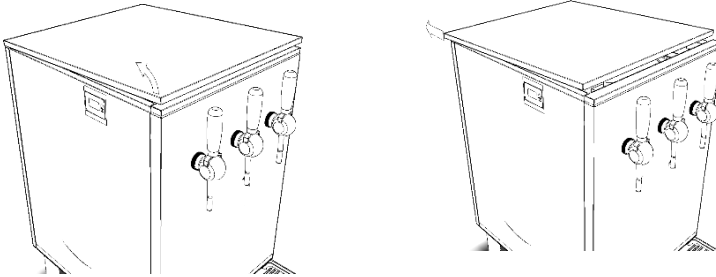
**Important:** It is important that the ventilation openings in the machine are not blocked and free movement of air through the unit is possible. Inadequate ventilation will shorten the life of the fridge system. Air is drawn in through the bottom of the unit and exhausted to the rear.

Fit the drip tray into place. The drip tray will prevent any water spillage, as ice is formed in the bath.

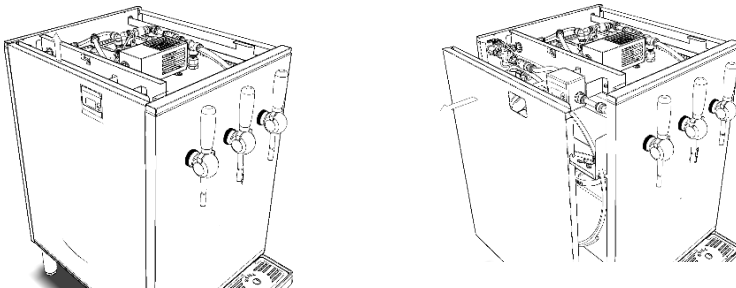


## Installation and Commissioning

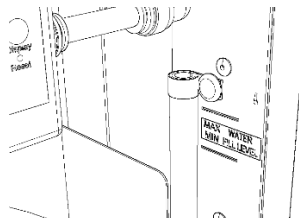
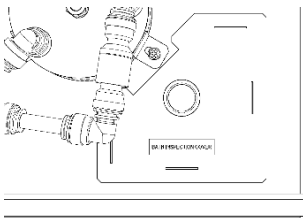
Lift lid at front and push back to release. There is also a grounding wire connecting the lid to the unit which also needs to be released. This gives access to the bath and carbonator.



Once the lid is removed, the left side panel can be removed. Release the grounding wire at the top of the panel, then lift the panel up and away from the unit. This gives access to the filter housing assembly, bath level indicator and the flowmeter.

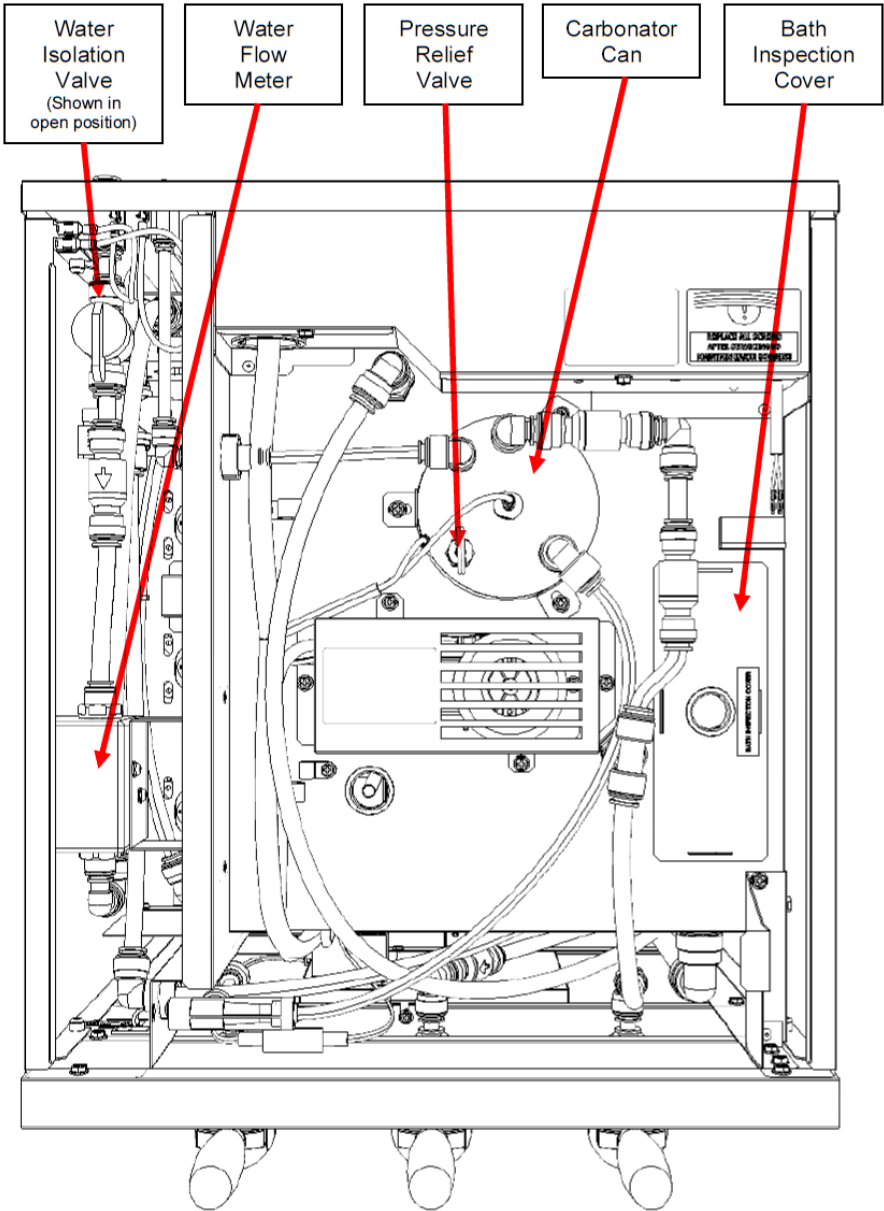


The bath is filled by removing the bath inspection cover and is filled until the water level is between the min and max marks.



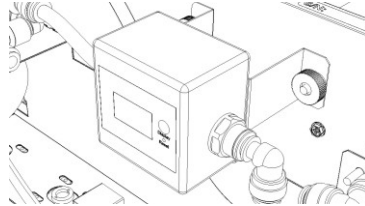
# Installation and Commissioning

## Key Internal Locations

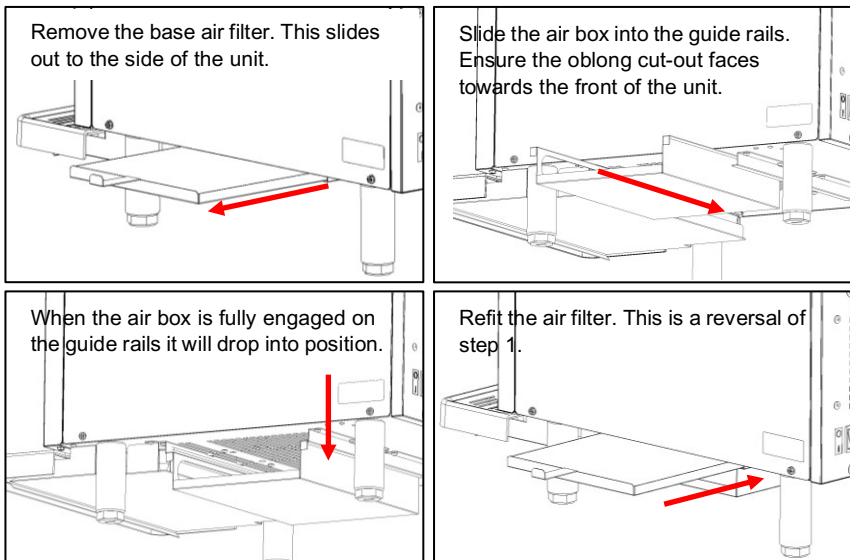


## Installation and Commissioning

Fit the supplied AAA Batteries into the flowmeter. When the batteries are fitted, the meter will make one or two audible beeps and cycle through a screen test, this is normal. Refer to the supplied flowmeter instructions for correct operation.



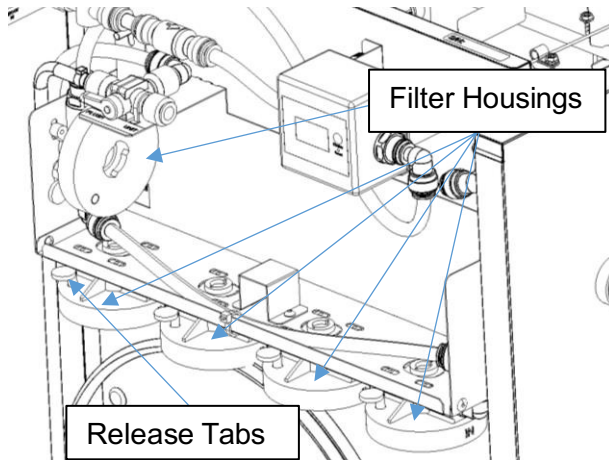
Ensure that the supplied air filter and air box are in place, this is located on the underside of the unit. The filter will protect the internals of the unit from dust ingress. It is important that the filter is in place as inadequate filtering will shorten the life of the cooling fans.



**Important:** The air filter is statically charged and as such should not be washed in any kind of fluid; doing so will reduce the performance of the filter. It is recommended that the filter should be replaced when blocked or at least every six months.

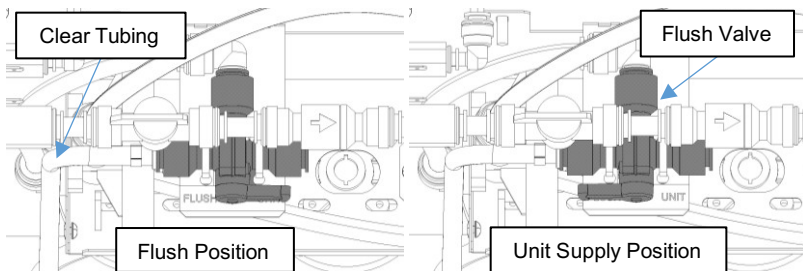
## Installation and Commissioning

Fit all 4 water filters to the filter housing assembly. The filters are a twist and lock design and will lock into place after a  $\frac{1}{4}$  turn (a clicking sound will be heard, and the red release tab will spring into its locked position).



Turn on the CO<sub>2</sub> gas supply, ensuring the pressure is set to 55 psi. Purge the carbonator can by lifting the yellow lever of the pressure relief valve on top of the can, and let gas flow for up to 5 seconds, then close.

Before turning on the water supply locate the flush valve at the top of the filter housing and turn the lever to the 'Flush Position'. Connected to one of the valve outlets is a clear PVC tube, the end of this should be placed into an empty bucket or to a drain





## Installation and Commissioning

Turn on the water supply. Water will now begin to flow through the water filters and the flowmeter will display a flow rate. When the filters are full, water will flow out of the clear tubing. Initially the water will contain some sediment from the carbon filtration, this is normal, allow to flow until clear.

Once clear, turn the flush valve lever back through 180° into the 'Unit Supply Position'. Water will now be directed into the water circuit of the unit.

Open the ambient tap until water flows, then close. Open the still tap until water flows, this may take a few seconds as the cooling coil for the still tap fills with water, then close. At this stage re-fit the exterior panels.

Turn on the electrical supply. After a short delay the fridge system will activate (check for air exhausting to the rear of the machine) and the carbonator can fill pump will activate; once the can is filled the pump will automatically switch off.

To ensure all air is purged from the carbonator can, turn off the electrical supply and dispense soda water until the can is empty, then allow gas to flow from the dispense tap for 5 secs.

**Important:** Correct carbonation will not occur until ice has started to form in the bath and the water temperature has fallen below 41°F (5°C).

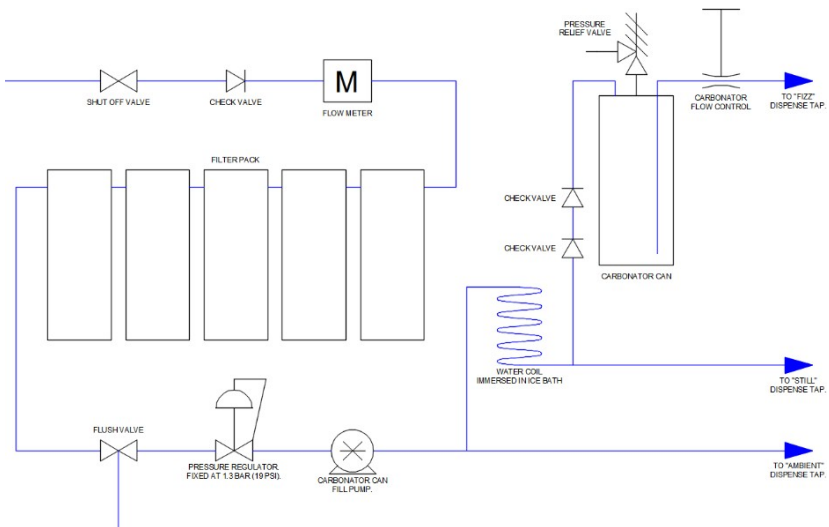
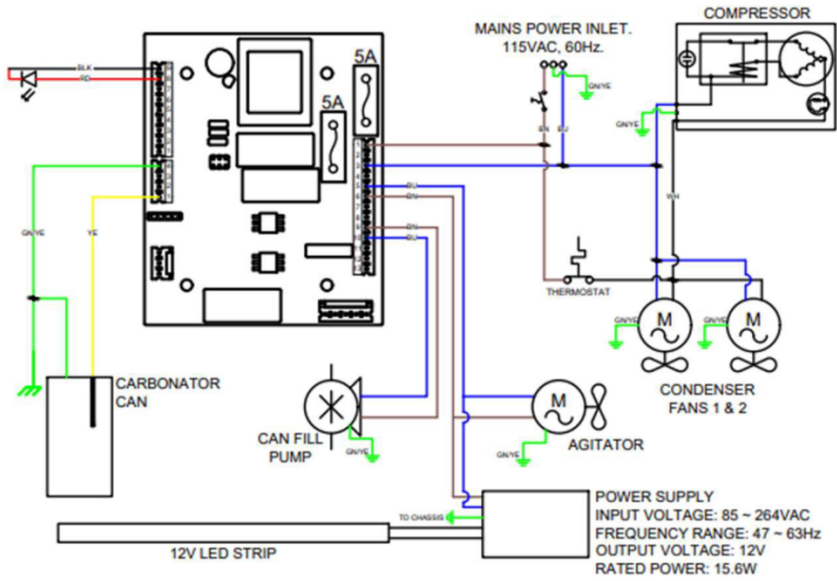
Restore the electrical supply. The fridge system and can fill pump will activate as before and the can pump will switch off when the can is full. When the compressor and fans switch off the unit is ready.

**Note:** Depending on the ambient temperature and the temperature of the incoming water the time required for the fridge system to switch off can take 3 to 5 hours. In very high ambient conditions (90°F or higher) the time required may be over 5 hours.

**Note:** If the bath has been filled to the point of overflow, approximately 17 fl oz (0.5 ltr) of water will be displaced as ice forms in the bath.

# Schematics

## Electrical Circuit



## Fault Finding

Prior to any fault finding, please ensure all water and gas connections to the chiller are sound and that the incoming water and gas supplies are turned on. Also ensure that all electrical connections to the chiller and in the chiller are secure and in good condition, the power is on.

If the above are satisfied, ensure that the chiller has had adequate time to reach operating temperature.

A status LED is in the water filter compartment below the bath fill level indicator pipe:

Status	LED
Normal operation	OFF
Water pump timeout	ON 1 second - OFF 2 second

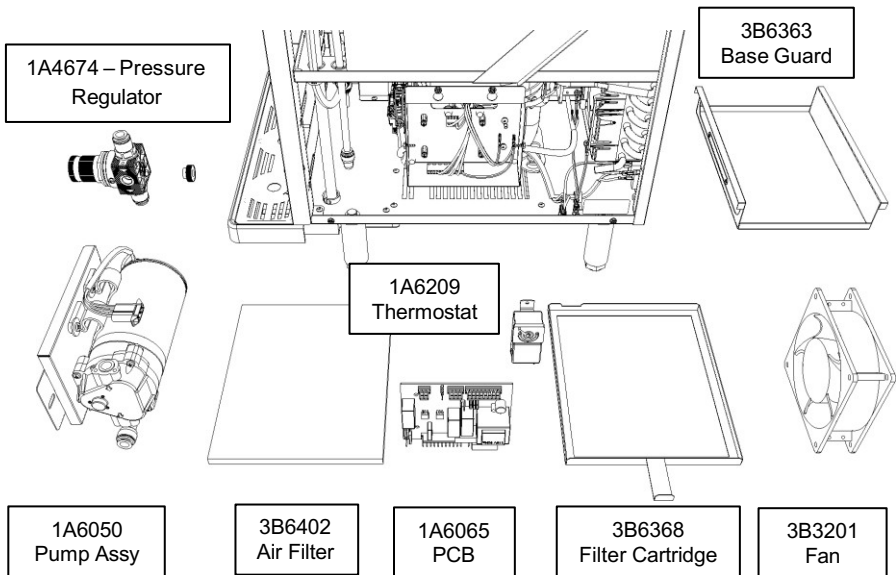
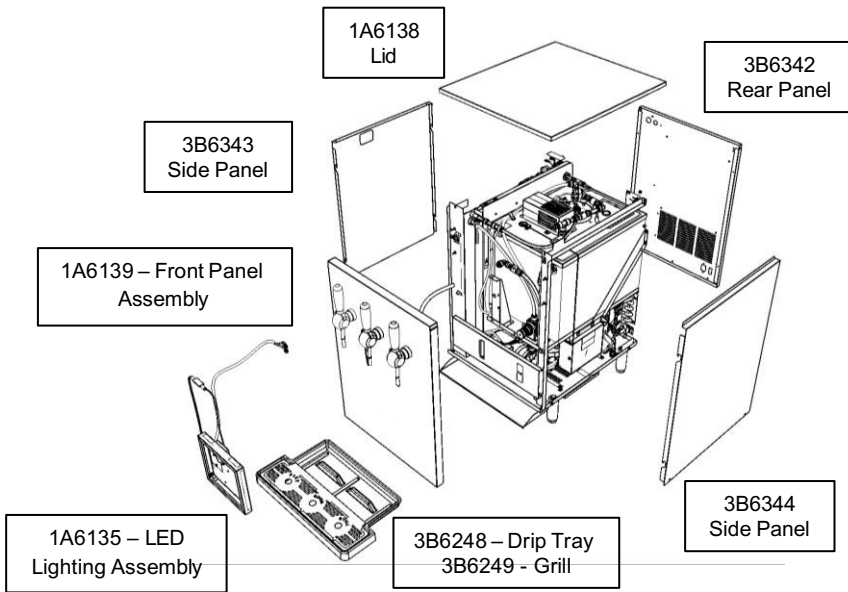
Timeout and protection events can be reset by cycling mains power off then on. The cause of the event should be investigated and corrected.

Symptom	Possible Cause	Corrective Action
No Water Dispensing	Inlet valve not open.	Check water supply is connected and on. Check internal isolation valve is open.
	Ice bath frozen up.	Check thermostat probe is fully inserted into the bath.  Check for ice bath contamination, melt ice, drain bath and refill. If contaminated, identify & rectify source of contamination.  Check that the thermostat is functioning correctly. Replace if necessary.
	Water pressure regulator	Check water can flow through the regulator. Replace if necessary.
	No Carbonated Water	CO2 pressure (check by operating pressure relief valve on carbonator can)
	Carbonator Can Not Filling	Check carbonator probe for possible short circuit to ground. Including moisture on the can lid.

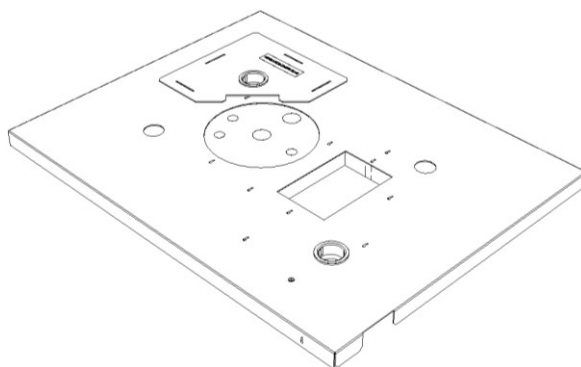
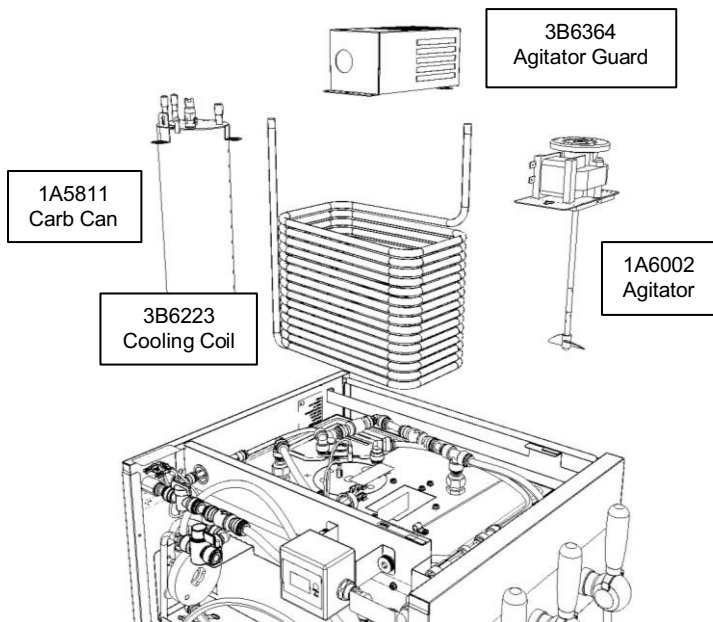
## Fault Finding

		<p>Check LED for pump timeout indication. If timed out, cycle power off &amp; on then purge carbonator.</p> <p>Check supply to water pump (115V AC), if voltage present &amp; pump inoperative - replace pump.</p> <p>If voltage not present &amp; pump is not timed out, check PCB fuses. If necessary, replace PCB</p>
Poor Quality Carbonation	Incorrect CO2 Pressure	Check CO2 bottle, regulator, and non-return valve. Supply pressure should be 55 psi, adjust or replace as necessary.
	Air in Carbonator Can	Purge the carbonator can by operating the flush switch until empty and CO2 is dispensed for 5 seconds.
	Residue in Carbonator Can	After prolonged use, a surface film can develop within the carbonator can preventing good carbonation. This can be removed by flushing the system using a solution of citric acid, refer to cleaning and sanitizing instructions.
	Carbonator can is overfilled	If pump runs continuously, check connections to can level probe, if problem persists replace the PCB.
Warm Drinks	Compressor not running	Possible overheating. Allow unit to cool. The compressor will start once the unit has cooled sufficiently. If the problem persists, investigate possible causes.
	Insufficient air flow through the fridge.	<p>Check that the condenser is not blocked.</p> <p>Check that the air filter is not blocked</p> <p>Check the cooling fans are running.</p>
	Fridge failure	If compressor & fans are running and there is no cooling, return for repair.

# Spare Parts



# Spare Parts



1A6264 – Bath Lid

## Removal, Transportation and Disposal

**Important:** Before removal from the installation, ensure all electrical, product and gas connections are disconnected.

### Disposal of Scrap Units

It is illegal to simply scrap a refrigeration unit. Before a unit can be scrapped it must first have the gas removed by a specialist using special equipment. Please contact Vero Water for guidance.

### Transportation

**Important:** This unit must be transported in an upright position

As with all refrigeration systems, irreparable damage can be caused by laying the unit on its side or even transporting it upside down. Where the unit is transported by a carrier, the carton should always be marked in a conspicuous manner, the correct upright position in which it must be handled.

If a unit has been transported incorrectly it should be placed in the correct upright position and left for 24 hours before attempting to run the system.

Failure to observe the above precautions could seriously damage the system and would void any warranty.

