GB

BOOTH SERVICE MANUAL
NECTA SPL273 & CAD007

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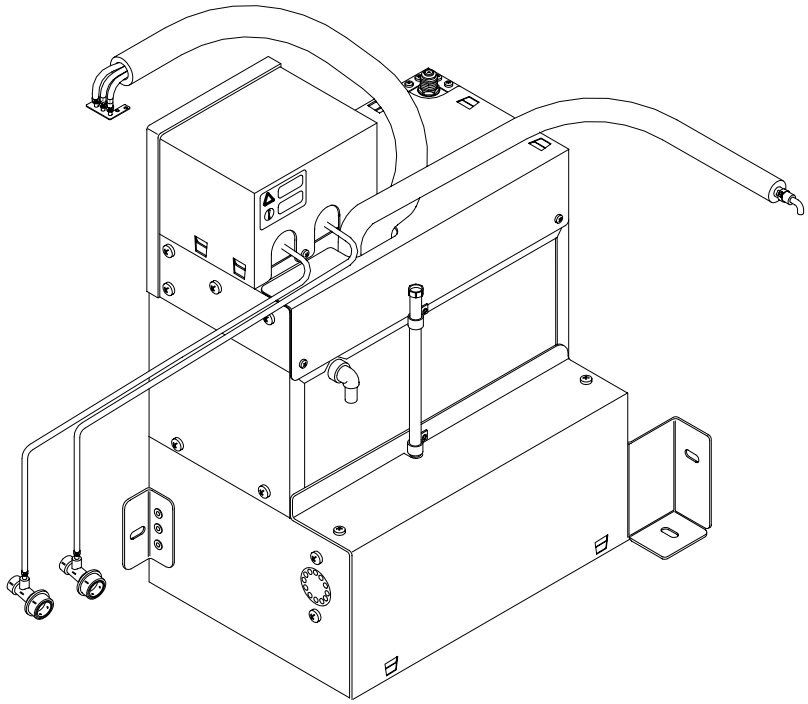

October 2001

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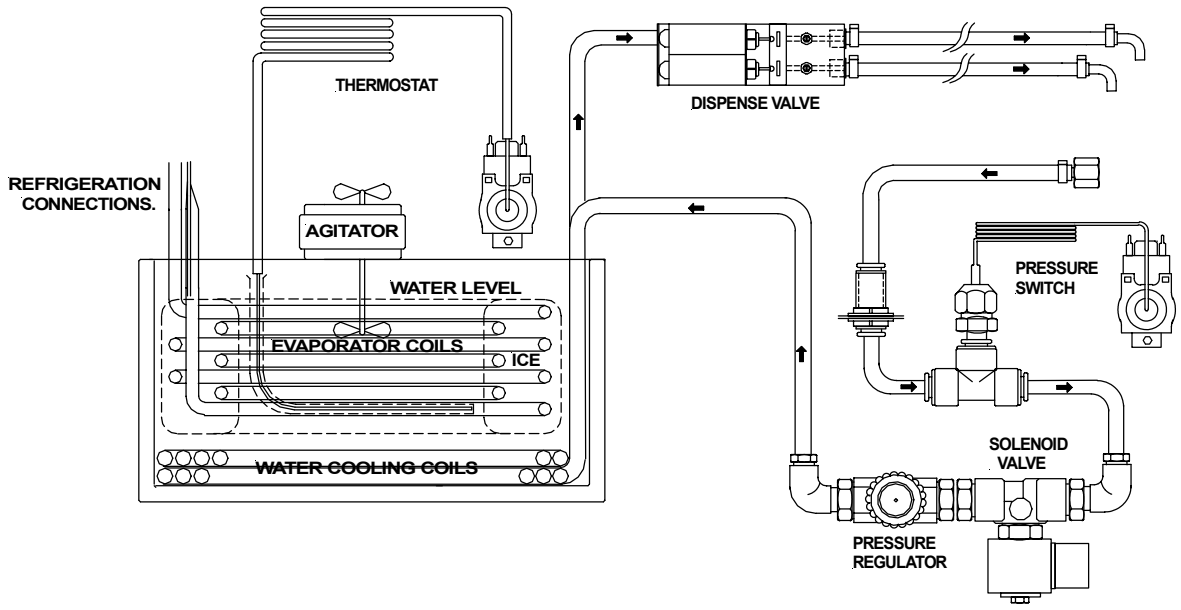
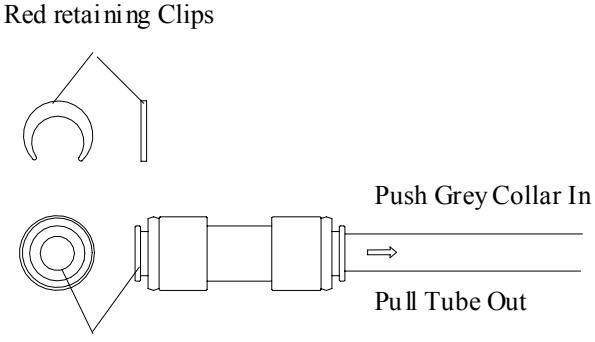


SPL273 NECTA SOLUTIONS WATER FLOW SCHEMATIC

1. Place the waste bucket into position ensuring the cooler overflow is placed above the waste bucket..
2. Fill the ice bath with **cold** water, through the filler hole on the left hand side of the deck until water pours from the over flow pipe.
   The Clear tube at the front will now show the water level in the bath.
3. Turn on the mains water supply to the machine.
4. Plug in the electrical interface to the cabinet.
5. Connect bag in box fittings to boxes of product or insert the syrup dip tubes into the correct syrup Containers according to system being used.
6. Prime syrups & water through to the dispense nozzles.

USING JOHN GUEST FITTINGS

THE RED RETAINING CLIP MUST BE REMOVED BEFORE ATTEMPTING TO TAKE OUT THE TUBE FROM A JOHN GUEST FITTING Fig 2



John Guest Fitting Operation

FIG2

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SANITIZING PROCEDURE FOR PARTS IN CONTACT WITH FOOD PLUS WATER BATH

Where **"HAND HOT "** water is suggested the temperature is designated to be a **maximum** of 50 degrees C

HOT WATER from the Vending Machine boiler can cause damage to some parts of the chiller and should not be used in any procedure unless specifically stated

DAILY ROUTINE

1. Immerse dispense tubes in **HAND HOT** water to remove external deposits and brush clean. Fig 3.
2. Clean inside tubes with brush provided. Fig 4.
3. Flush water lines with 0.5 ltr of water.
4. Clean stainless steel dip tubes or bag in box fittings in clean **HAND HOT** water, on every occasion that a new container of product is fitted.

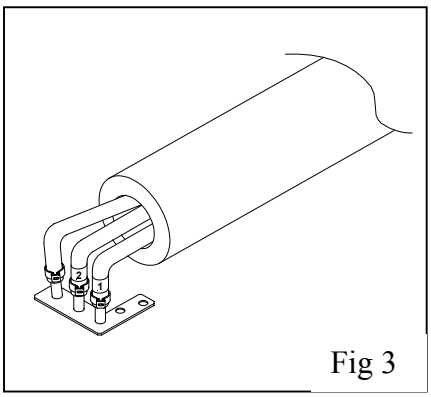

Fig 3

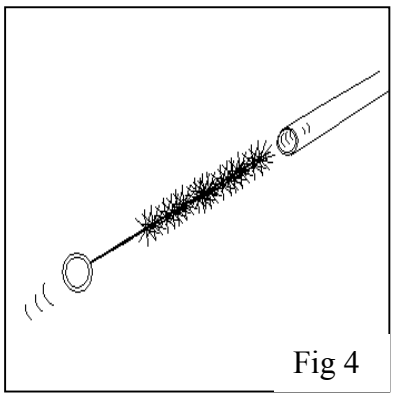
Fig 4

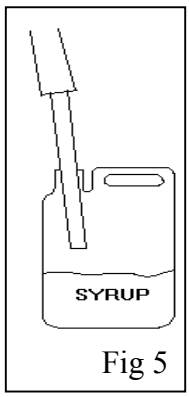

Fig 5

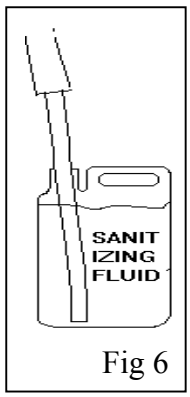

Fig 6

3 MONTHLY SANITIZATION

PREPARATION

1. Ensure that the waste bucket is in place .
SPL273 – it is necessary to remove the fittings from the tubes where Bag in Box syrup is used
2. Lift syrup dip tubes above liquid level in product container Fig 5 & operate pumps to empty lines, then place in a container of clean water and prime through to dispense nozzle then lift out of water & continue until syrup tubes are empty.
3. Drain the ice bath via the clear drain/level indicator tube at the front of the machine. Flush out with warm (**max 50^{o}C**) water ensuring all ice is melted and drained.
4. Prepare a solution of proprietary sanitizing fluid such as . **DIVERSAL BX4A**. carefully following the manufacturers instructions.
A 5 litre syrup container is ideal for this operation. Fig 6.
5. Fill the ice bath with the solution and leave to stand according to the manufacturers recommendations.

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SANITIZING WATER SYSTEM

IN ORDER TO SANITISE THE COOLING COIL IT IS NECESSARY TO INTRODUCE SANITISING FLUID INTO THIS COIL– HERE ARE SOME GENERAL SUGGESTIONS.

ALWAYS FOLLOW THE SANITISING FLUID MANUFACTURERS RECOMMENDATIONS

1. Where a filter is fitted, remove the cartridge, put sanitising fluid into the chamber & flush through into the coil and leave to stand for the recommended period

2. Where a complete filter is fitted, such as Everpure, dummy filters are available for this purpose.

ALTERNATIVE.

Disconnect the flexible inlet water tube from the water supply and pump sanitising fluid into the cooling coil.

SANITIZING SYRUP LINES (SPL273)

1. Switch on the main power.
2. Place syrup inlet tubes into the container of sanitizing fluid & operate the syrup pumps until syrup pours from the dispense nozzle. Fig 7
3. Leave to stand for the period recommended by the manufacturer of the sanitising fluid.
4. Switch off power.

Fig 7

RECOMMISSIONING

1. Switch on power supply.
2. Place syrup inlet tubes (SPL273) into a 5 litre container of clean cold water and flush 1 litre through each syrup line .
3. Reconnect inlet water supply tube to machine supply & vend **3 litres of water**
4. Drain ice bath and refill with **cold** water, Repeat.
5. Re connect syrup tubes to the appropriate syrup containers , fit all covers etc.
6. Prime waters and syrups through to dispense nozzle & check drink strength. Re set if required.
7. Close vending machine door & test vend all cold drinks.

CLEANING & MAINTENANCE
PARTS NOT IN CONTACT WITH FOOD PRODUCTS

1. **ICE BATH** See parts in contact with food pages 3 & 4.

2. **CONDENSER.**

Condensers are one of the most neglected areas of a refrigeration system.

Lack of cleaning will :-

At Best **a)**. Shorten the overall life of the compressor
b). Impare the drink performance for your customer reducing sales.

At Worst Cause complete failure of the system resulting in
Expensive repairs,
Customer dissatisfaction.
Poor reputation for both your Company & Booth Dispensers.

Thoroughly clean the condenser **AT LEAST ONCE A MONTH** with a small stiff brush accessing through front & left side panels as well as the rear.
Avoid poking between the fins with screwdrivers & sharp objects which may puncture the condenser causing expensive repairs.

Remember that the more often the condenser is cleaned, the easier it will be to do.

3. GENERAL CLEANING.

Ensure that the complete unit is clean, particularly around the edges of removable panels where spillage from
ingredients may have ingressed, & especially where the unit stands.
If necessary remove the unit from the vending machine & thoroughly clean the base and floor.

NB Where liquid has ingressed into the unit investigate the cause and rectify.

GENERAL OPERATION AND SERVICING OF COMPONENT PARTS

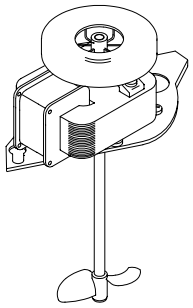

Fig 8

AGITATOR

The purpose of the agitator is to circulate the water in the ice bath in order to rapidly transfer the heat from the water cooling coil to the ice, resulting in cold water at the dispense point. It is wired direct to the mains input therefore runs on a permanent basis.
No maintenance is required and if it fails, must be replaced by the **correct part**.

Fitting a different type i.e. faster – slower – different pitch blade, can upset the balance of the system, possibly resulting in a freeze up situation.

DISPENSE VALVES

The 2 port electro mechanical valve assembly operates in the same way as on all Booth Vending units where valves are fitted at the factory.
The retaining screw (A) for the actuators is tightened to 0.3 nms and should not be over tightened in service.

Adjusting screws (B) are fitted to enable each channel to be independently set to dispense a specific amount of Water, according to the customer requirements.
Always undo the lock nut prior to turning the screw and tighten again afterwards.
This valve can be operated manually by simply pushing the actuator in the direction of flow.

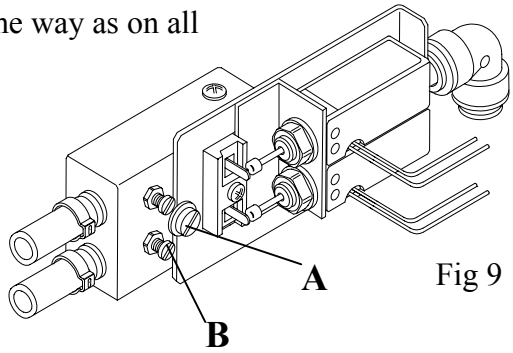

Fig 9

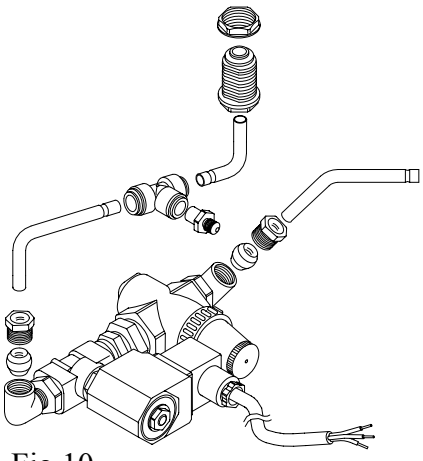

Fig 10

WATER REGULATOR & SOLENOID VALVE

The water regulator is pre set to 2 bar and none adjustable.

The Solenoid Valve opens every time water is dispensed.

If this item is suspected of not opening, test if the electrical coil is OK by touching the Nut on Top with a metal object such as a screwdriver to test for **magnetism** when a drink is selected.

If not magnetic – replace.

If magnetic – Check for blockage or internal fault with Valve mechanism or fault with water supply to this point.

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PRESSURE SWITCH

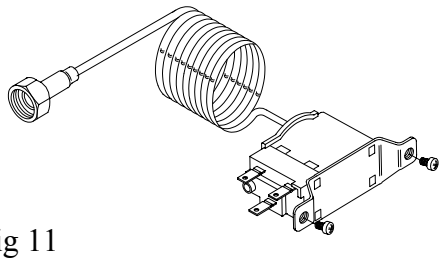

Fig 11

The Pressure Switch is connected direct to the Vending machine Control System and senses the incoming water pressure before the Solenoid valve fitted to the chiller.

If the pressure drops to 0.8 bar the unit will be disabled until pressure returns to 1.8 bar. **This switch is Non Adjustable**

THERMOSTAT

Thermostats switch the fridge system on and off according to the temperature sensed in the ice bath. When the fridge system is running there will be 230volts on both terminals.

When a full ice bank has been built and the fridge has stopped running the contacts will be open with no reading on the output terminal of the thermostat.

After a long period thermostat contacts can 'weld' together causing a frozen ice bath. **NEVER ADJUST THE THERMOSTAT.**

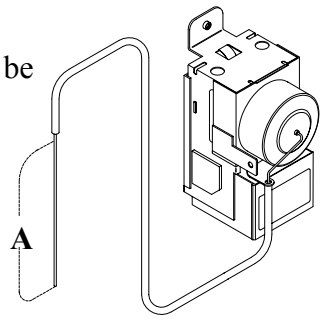

Fig 12

ALWAYS replace the thermostat with **THE CORRECT PART** from **Booth Dispensers Ltd**. As the setting is likely to be different to other makes of chiller.
(Specific setting: cut in at +0.7, cut out –2.8 at sea level).

ALWAYS be sure that the complete length of bare capillary is inserted into the sensing tube (A fig12). Part insertion can result in a frozen ice bath.

The syrup pumps are of the reciprocating piston type and operate on 230 volt AC controlled direct from the Vending machine control system to relays fitted to the chiller.
If allowed to remain empty after having sold out of syrup, they are likely to seize and fail to prime when new syrup is installed.
Introducing Warm water into the pump with a syringe may solve this problem.
It is therefore essential that new syrup is installed quickly after selling out.

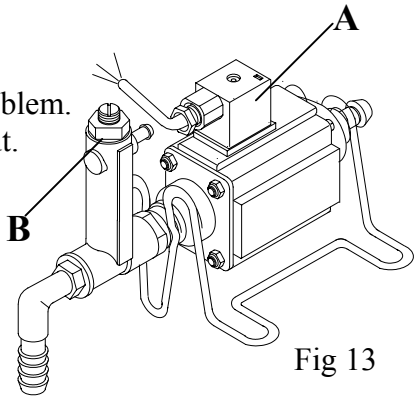

Fig 13

Where a pump does not run, try the following:
Check supply on Molex Connector Pins 1 or 6.
Check appropriate relay is operating.
Swap plugs over on pumps (A Fig 13) to check for circuit or pump fault.

Where a pump runs and does not pump syrup:
Check for sucking air in on inlet side of tube to pump – Check for Air Lock – Check for blockage.
Check adjusting screw is open on pump. **NB ALWAYS** undo the lock nut (B Fig 13) before turning the screw.

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THE REFRIGERATION SYSTEM

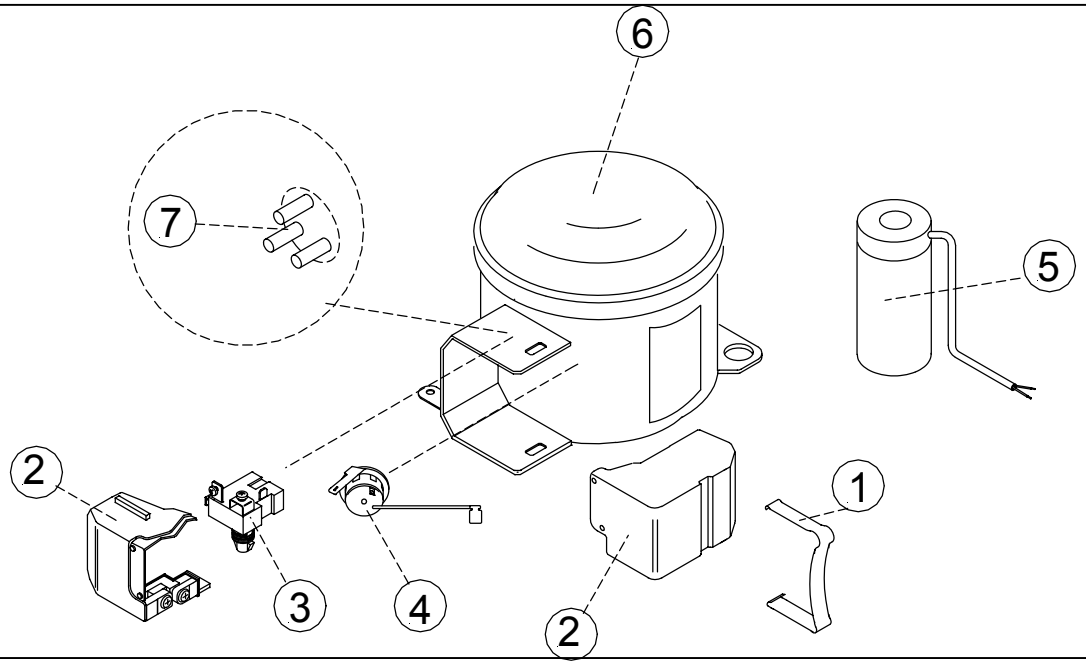

Fig 14

The refrigeration system is hermetically sealed with no temperature adjustments available, designed to work in a maximum ambient temperature of 32 degrees Celcius.

There are some compressor parts that can be checked and replaced if necessary as follows:

1. Compressor Relay '3' – Overload '4' - Capacitor '5' FIG 14.

These items all control the running of the compressor and should be replaced when a compressor keeps cutting out with a **'Click'** sound, shortly after start up.

In all cases of compressor control, it is essential that the correct numbered part is fitted

It is also possible to test the compressor windings with a meter by checking for continuity between pins 'A' & 'B' and 'A' & 'C'. Also check for short circuit to earth. FIG 15.

Where compressor windings have failed the unit must be replaced and returned to a competent refrigeration repair Service.

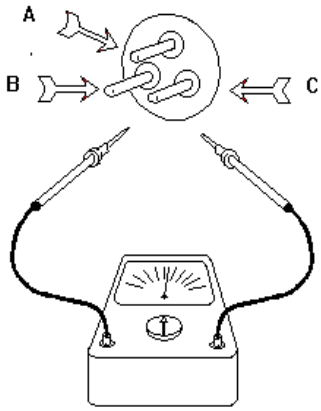

Fig 15

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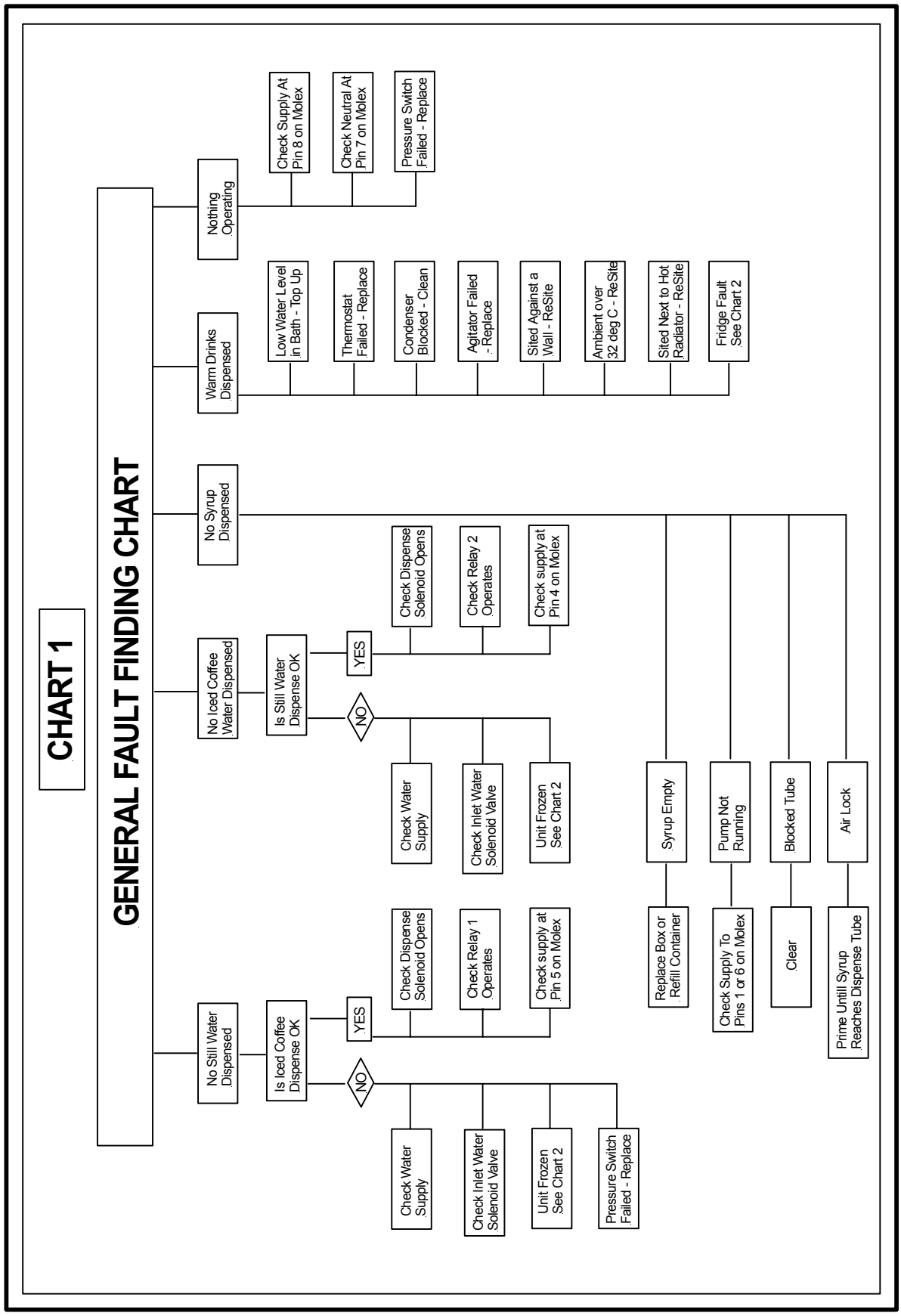

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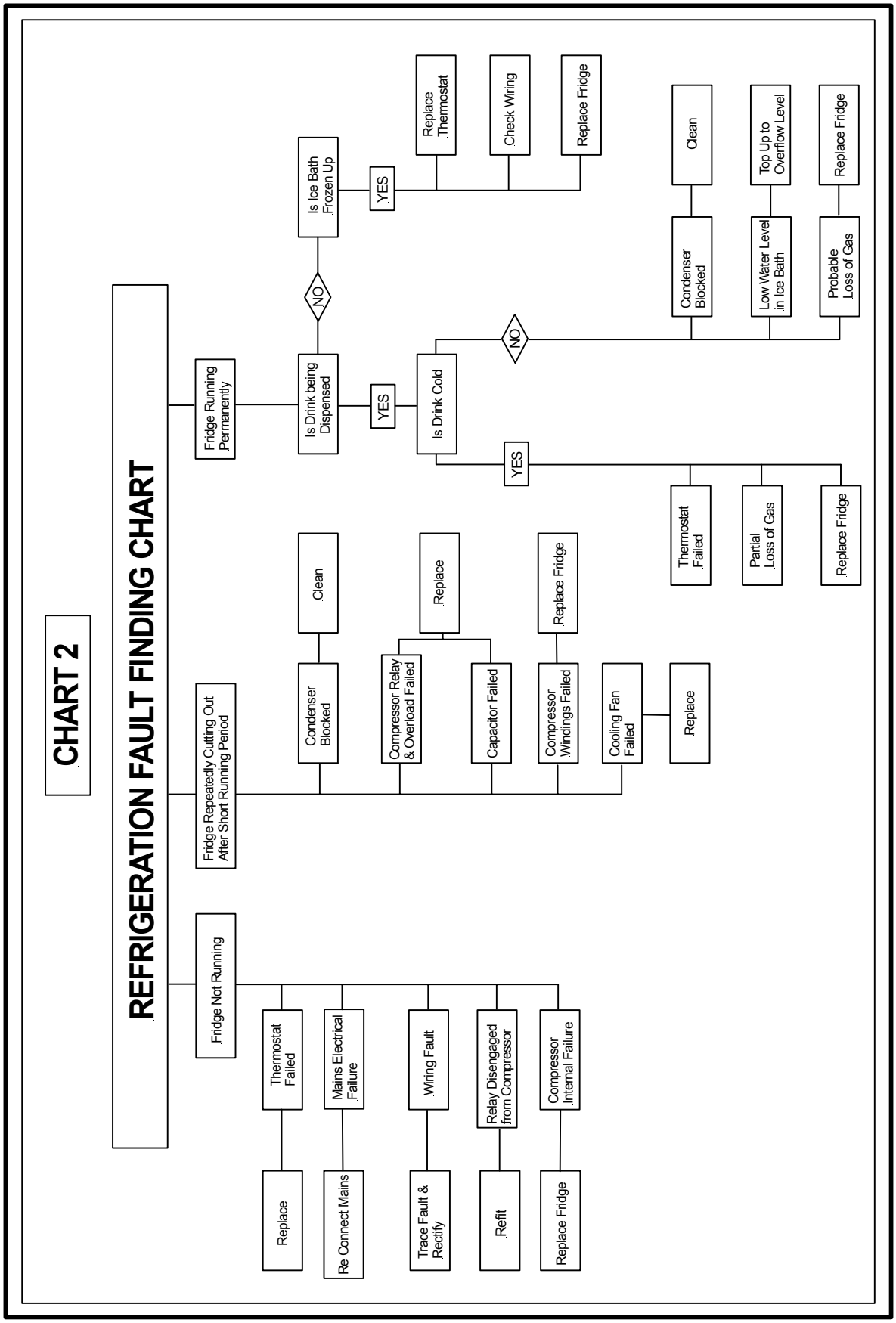

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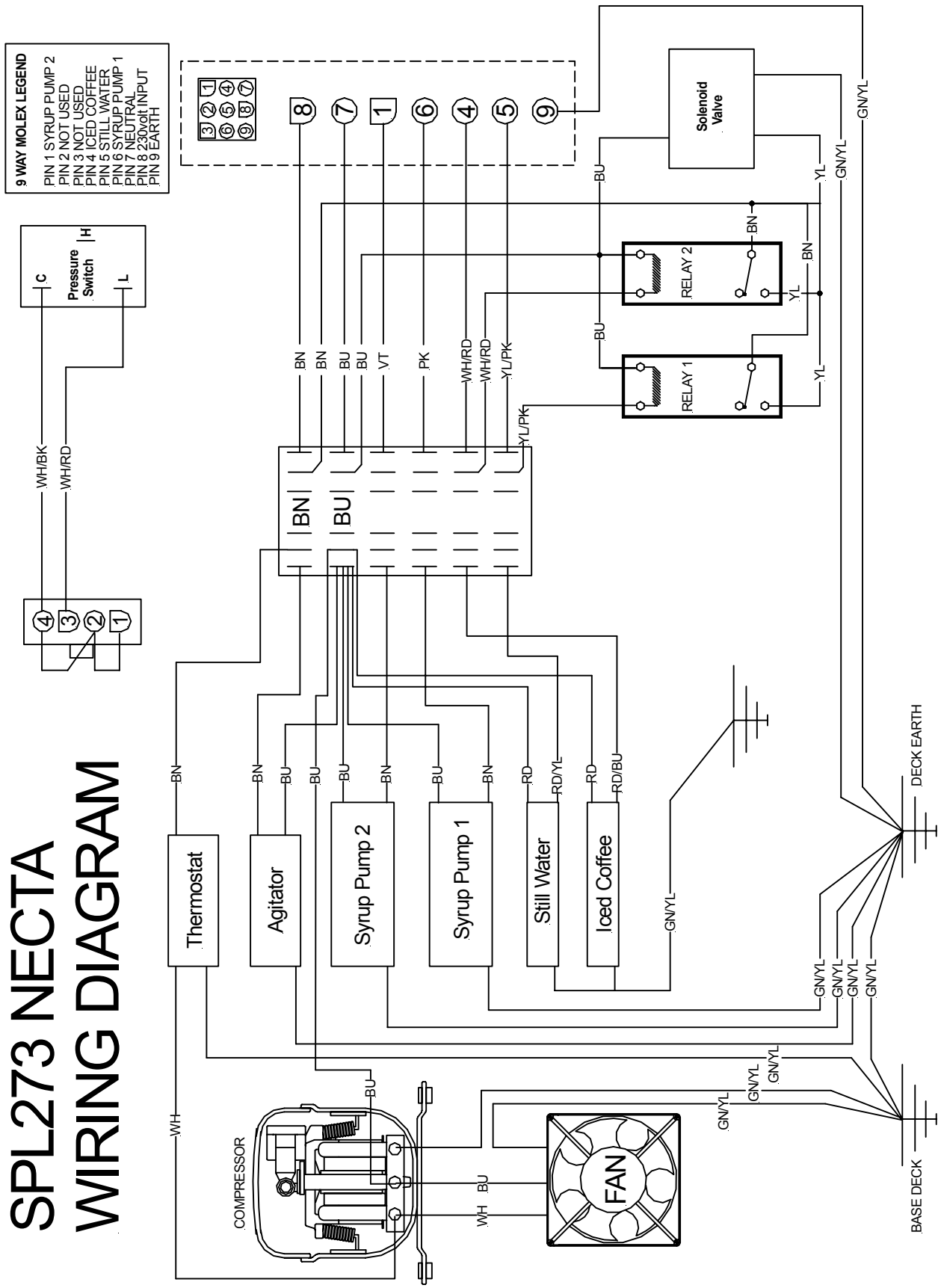

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REMOVAL & TRANSPORTATION OF BOOTH REFRIGERATION SYSTEMS

Before removing the chiller from a vending machine it is important to ensure that it can be transported comfortably and in a hygienic manner without leaving a trail of ingredients on the customers premises as well as the vehicle used.

Proceed as follows:-

1. Remove the bag in box connectors & place the tubes into a container of clean water and prime through until the water is coming from the nozzle.
   Whilst still priming, lift the tubes above the level of the water until all tubes are empty.

2. Switch off main power & drain all water from the Ice bath.

4. Disconnect water supply & unplug the electrical interface.

The unit is now ready to be removed from the vending machine.

TRANSPORTATION.
ALWAYS TRANSPORT REFRIGERATION UNITS UPRIGHT

As with all refrigeration systems, irrepairable damage can be caused by laying the units on their side or even transporting upside down.

Where the unit is transported by a carrier this is out of your control & the carton should always be marked in a conspicuous manner, the correct upright position in which it must be handled.

If a module has been transported incorrectly it should be placed in the correct upright position & left overnight before attempting to run the system.

Failure to observe the above precautions could seriously damage the system.

DISPOSAL OF SCRAP UNITS

It is now illegal to simply scrap a refrigeration unit.

Before a refrigeration unit can be scrapped it must first have the gas removed by a specialist using specialist equipment.

Contact your local refrigeration repair company for advice.