Pizza Hut Make Table

Operating and Service Manual

Table of content

Please read this manual completely before attempting to install

or operate this equipment

1. Specification

PH8

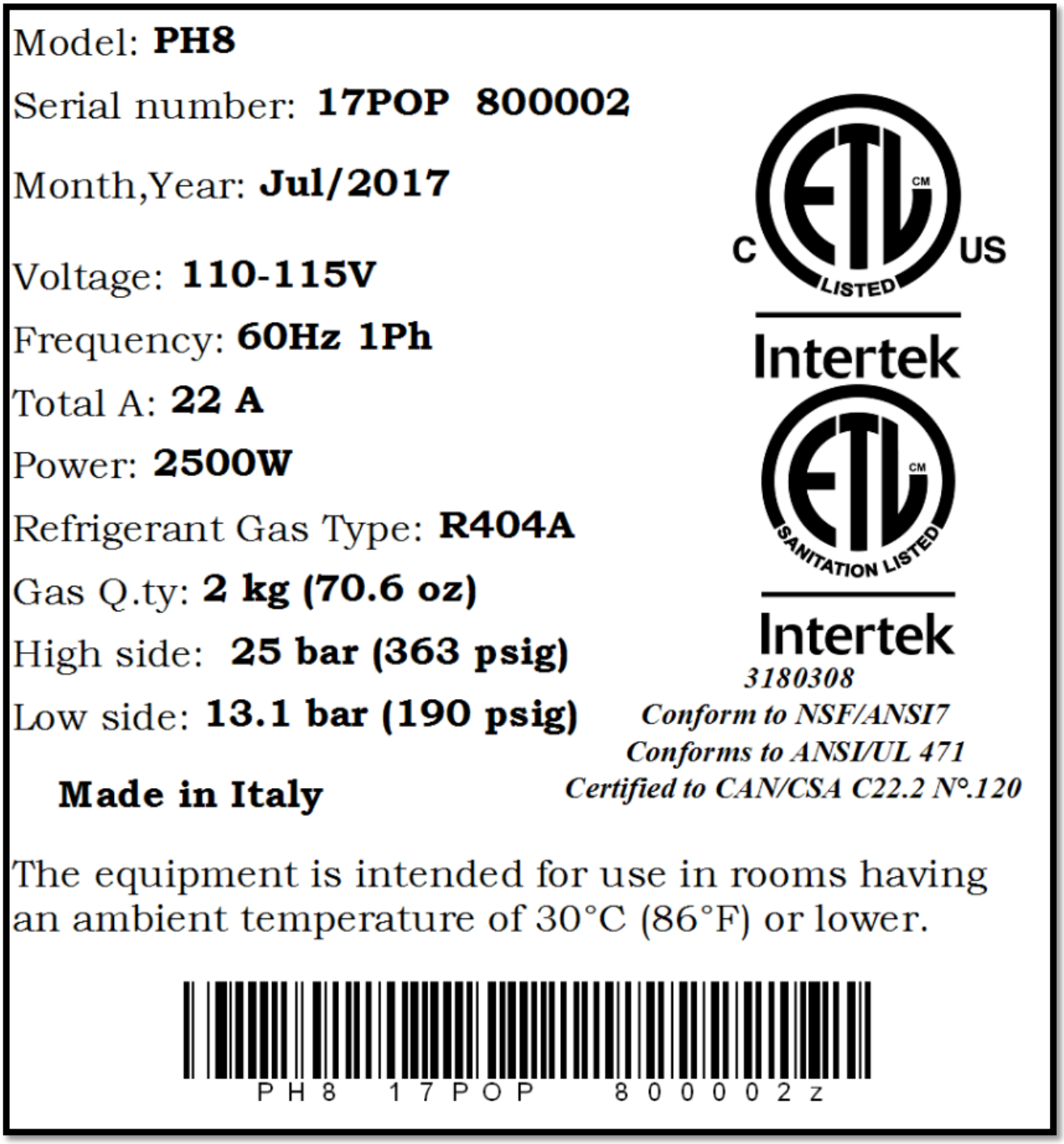
Model	Temp.°F	Door	Capacity Lt/ft^3	Dimensions			Voltage	Gas type	Gas Charge	Amps	Hp
PH8	28°/46°F	3	840/30	**L** 96”	**D** 42”	**H** 56”	115/60/1	R404A	70.6 oz.	22	1,7

PH10

Model	Temp.°F	Door	Capacity Lt/ft^3	Dimensions			Voltage	Gas type	Gas Charge	Amps	Hp
PH10	28°/46°F	4	840/30	**L** 120”	**D** 42”	**H** 56”	115/60/1	R404A	70.6 oz.	22	1,7

2. Serial tag

The serial tag is permanently affixed label on which is recorded the vital electrical and refrigeration data about the unit, such as the model, the serial number, year and month production, voltage, total absorbed power, type and charge of refrigerant.



**The Serial Tag is located on the back panel of the condiment rail compartment*.

3. Safety instructions

⚠ WARNING *Incorrect installation or any modification made to the appliance may damage property or result in injury or death*

⚠ WARNING *Certified technicians in compliance with local, state and federal regulations must perform electrical connection or any work required on the electrical circuits inside the appliance.*

⚠ WARNING *Make sure all facility electrical connection are in compliance with all local and federal electrical code regulations.*

⚠ WARNING *Before performing any service that involves electrical connection or disconnection and/or exposure to electrical components, always perform the Electrical LOCKOUT/TAG OUT Procedure. Disconnect all circuits. Failure to comply with this procedure can cause property damage, injury or death.*

⚠ WARNING *Before removing any sheet metal panels, always perform the Electrical LOCKOUT/TAG OUT Procedure. Be sure all circuits are disconnected. Failure to comply with this procedure can cause property damage, injury or death*

⚠ WARNING *Do not operate this equipment without properly placing and securing all covers and access panels. Failure to comply with this procedure can cause property damage, injury or death.*

⚠ WARNING *Do not use or store gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance. Failure to comply can cause property damage, injury or death.*

⚠ WARNING *In the event of a power failure, do not attempt to operate this appliance. Failure to comply can cause property damage, injury or death.*

⚠ WARNING *Appliance maintenance must be carried out by only by suitably trained personnel.*

⚠ WARNING *Before any maintenance work is performed, the appliance must be disconnected from the electrical supply. Apply a lockout tag to the electrical supply connection.*

⚠ WARNING *All replacement parts that are not supplied by Desmon must be pre-approved before installation.*

⚠ WARNING *Desmon's approved distributors or one of its authorized representatives must only perform repair work. Desmon accepts no responsibility for any situation resulting from work performed by untrained and/or unauthorized technicians.*

4. General description, zones and main component identification

B RAIL COMPARTMENT*

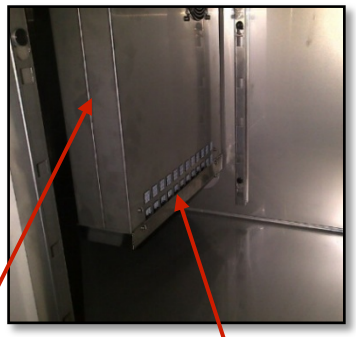
COOLING SYSTEM	Ventilated, with evaporator fans
DEFROST TYPE	Hot Gas Defrost, Auto Defrost function with Manual Defrost option
DRAINAGE SYSTEM	Drainage plug on right side of the pan compartment. Water drains through the discharge hose

A UNDERCOUNTER COMPARTMENT

COOLING SYSTEM	Ventilated, with evaporator fans
DEFROST TYPE	Air Cycle Defrost
DRAINAGE SYSTEM	Evaporator tray underneath each evaporator coil. Drainage to external automatic evaporation condensate pan.

(*) Pans are not included in the standard configuration of these products. Only use NSF approved pans in this Equipment.

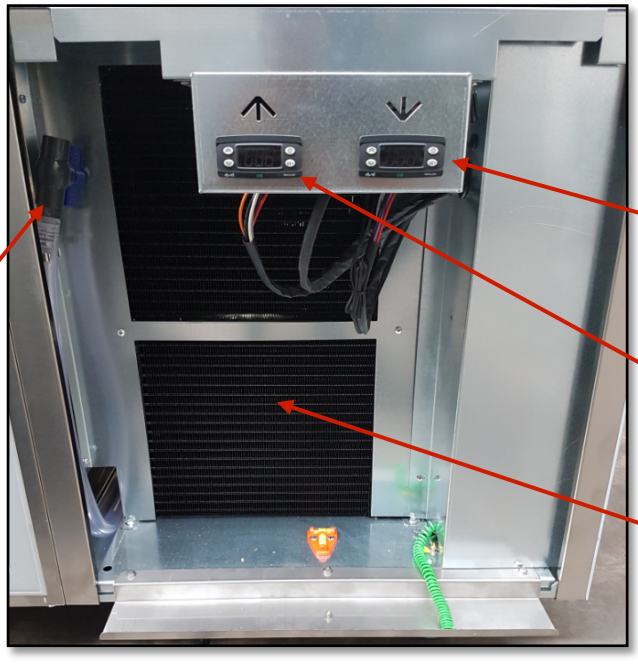
Undercounter compartment



Evaporator coil

Evaporator tray

Magnetic front panel
(Double Eliwell version)



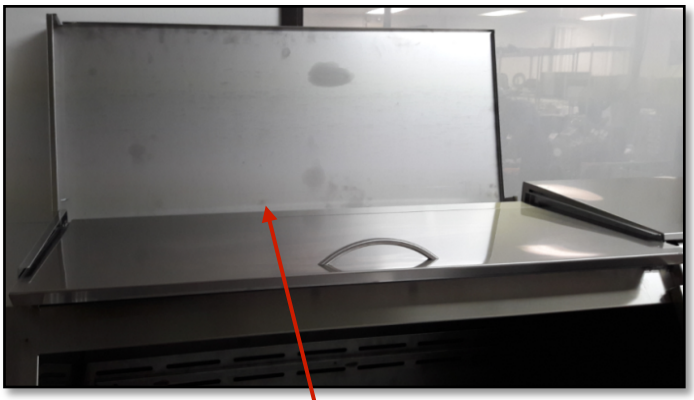
Drainage hose

Controller compartment A
(Undercounter)

Controller compartment B
(Condiment rail)

Condenser coil

Removable magnetic door gasket



Condiment rail
hinged top section

Removable interior structure
holding pans

Main switch

Motor
compartment

Condenser fan

Electrical box

Condiment rail
Hot gas valve

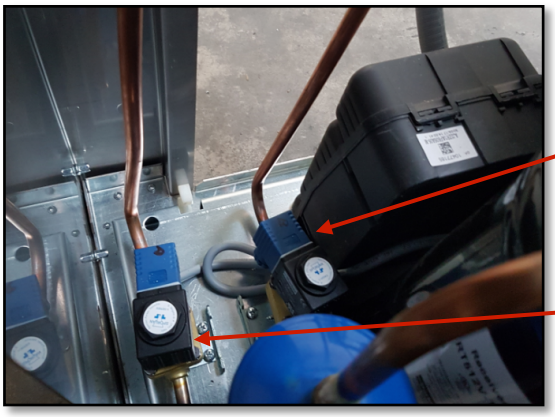
Pressure switch

Compressor

Under counter
Drainage tray

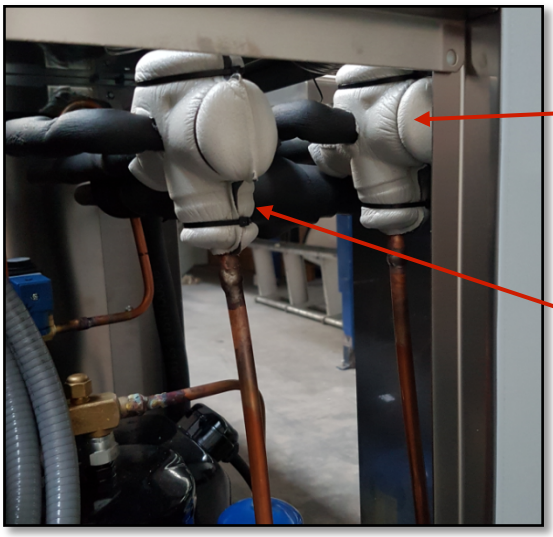
Liquid receiver

Filter dryer



Compartment B
Pump down valve
(Condiment rail)

Compartment A
Pump down valve
(Under counter)

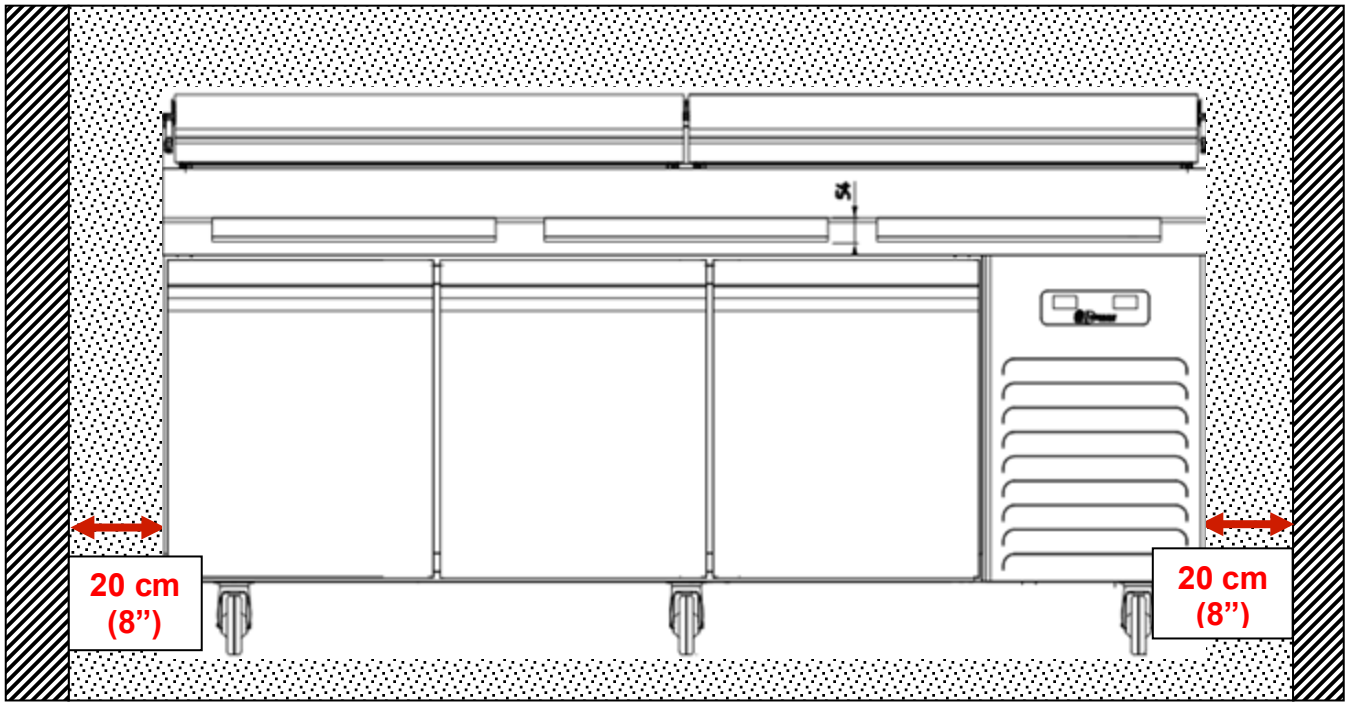


Compartment A
TX valve
(Under counter)

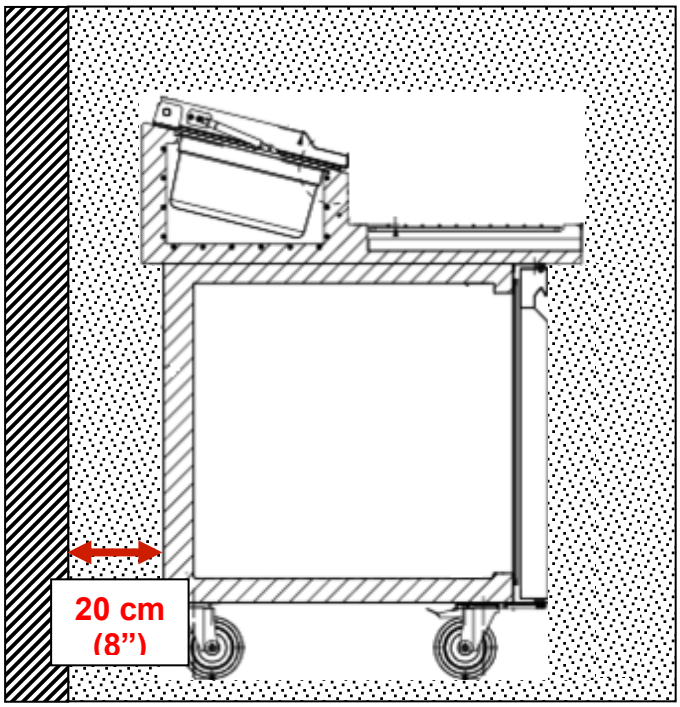
Compartment B
TX valve
(Condiment rail)

5. Installation

Minimum clearances, distances, and spacing's for installation.



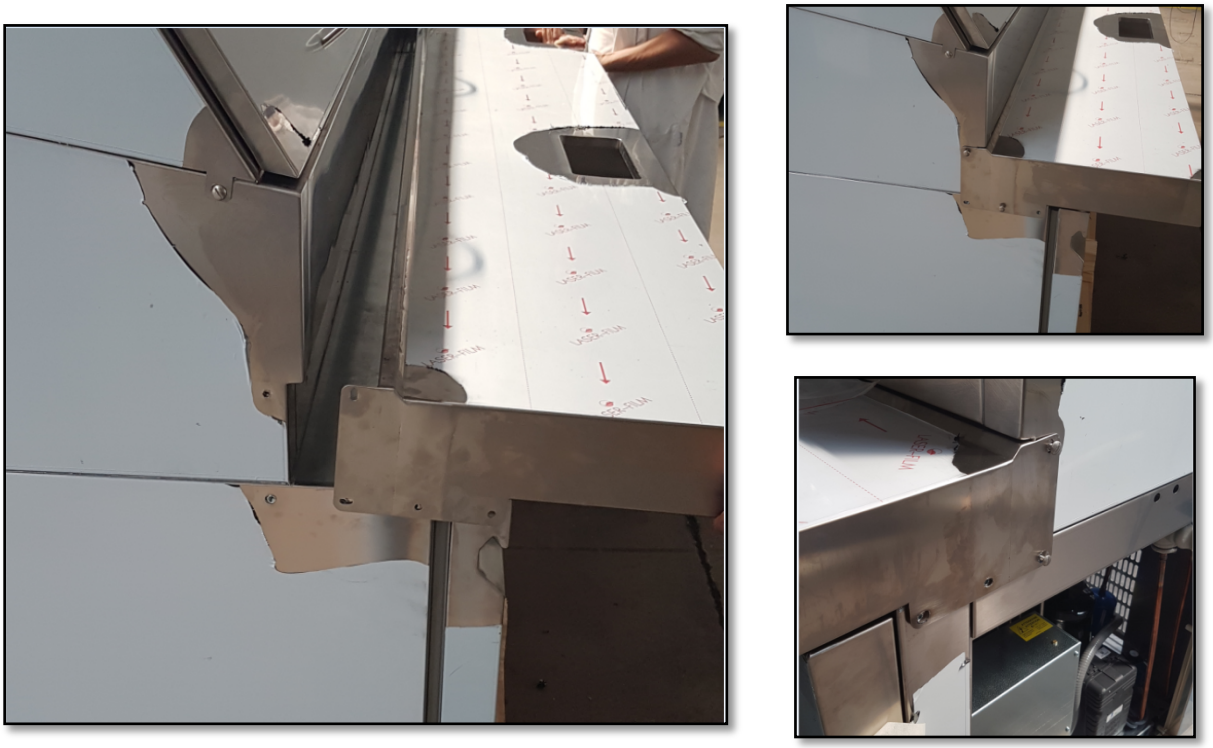
FRONT VIEW



SIDE VIEW

5.1 Work plan Installation

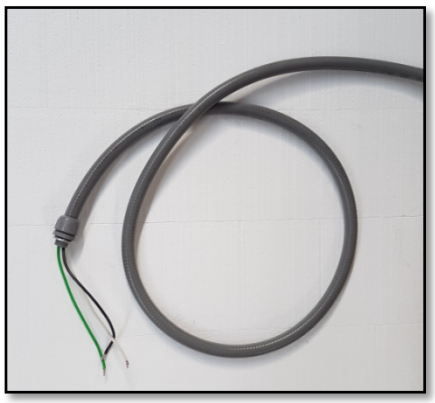
The work plan of the PH models uses to be delivered disassembled. In order to start operation, put the work plan on the top of the under counter and slip it up to the fixing position.
Fix it by fastening the four screws to both sides:



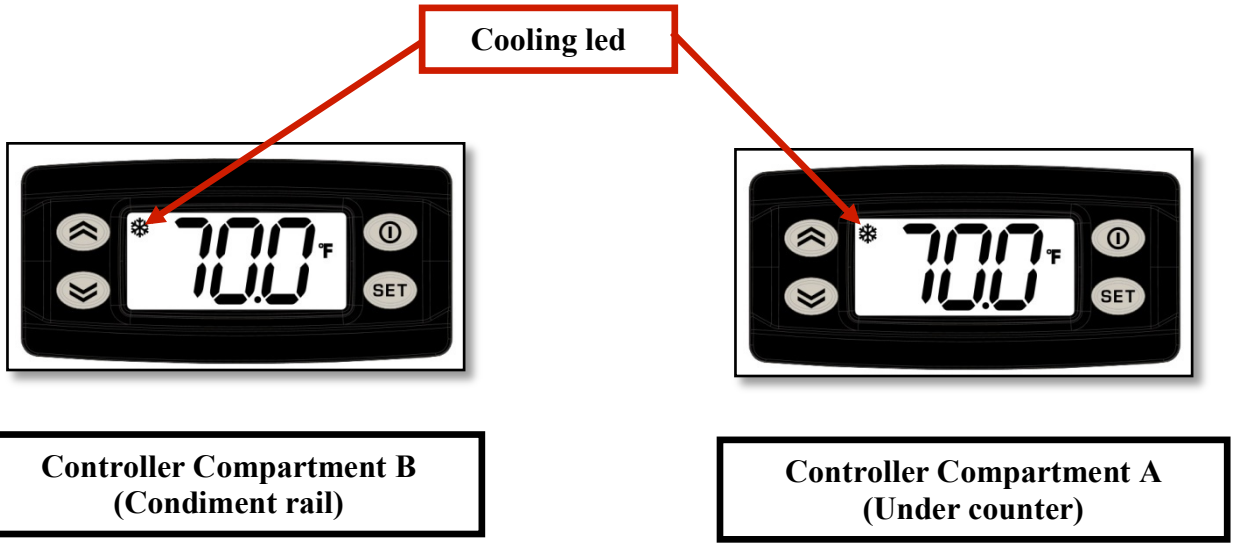
Fill the empty space between the overlapping metal sheets on both sides with NSF sealant in order to create a uniform joint:

6. Power ON

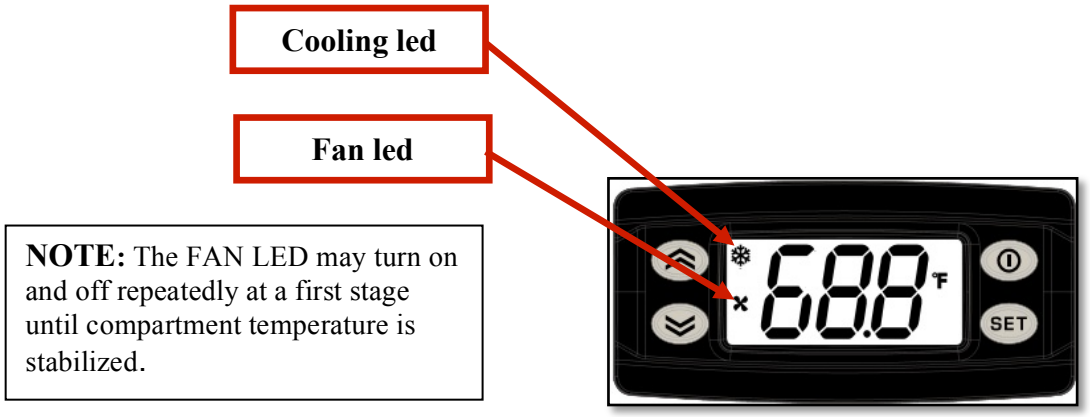
This equipement is provided with an insulated power cord but no plug therefore before starting operation clamp the plug to the power cord and then connect it to main power supply. The power cord is located on the back side, opposite to the front panel.



After connecting the plug, both displays on the front panel should keep blinking for few seconds, then the compartments' temperature will be displayed. If the displays do not light up, see paragraph **Error! Reference source not found.** to switch on the equipment/controller.



The temperature values shown in the above displays are only an example. In a real situation at the start up the controllers will show the ambient temperature, if the unit has been not operating previously. However, both temperatures should start decreasing in order to reach the Set point target temperature (whose typical value is 37/39°F [2-3°C]). The COOLING LED will notify whether the units is requiring cooling (led ON) or it is satisfied (led OFF). At a certain point the controller will turn on a FAN LED as well, meaning that the evaporator (internal) fan is running.



NOTE: *Since this equipment is pre-set at the storage temperature,* ***no setting action is required*** *on the keyboard by the user. Both compartments will reach the storage temperature within maximum 1 hour*.

7. Switch On/Off

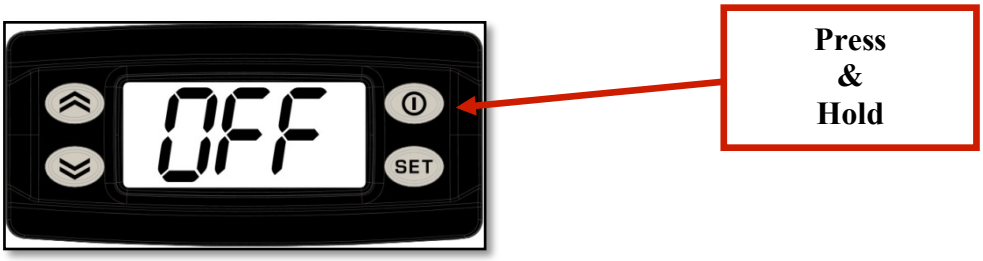
This procedure should be performed only if the display do not light up after connecting the power cord, or to shut off the equipment for mainteinance or other purpose. In the following instruction the power cord is meant to be already connected. See previous paragraph for details.
After connecting the power cord the following situation can occur:

1) *Both displays will light up, showing the interior temperature.*

Wait until the unit cools down both compartments, follow sequence described at paragraph 6“**POWER ON**”.

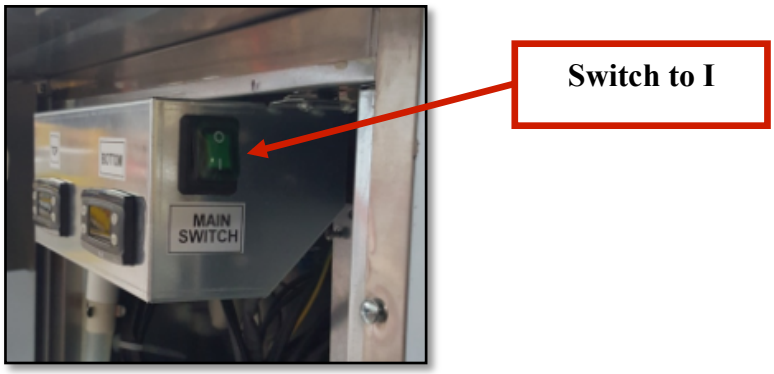
2) *One or both display will light up and show "OFF"*

Press and hold for 5 seconds the ON/OFF key to switch the controller ON.



3) *No display lights on.*

Remove the front panel to access the Main Switch. Put the switch in position 1.



Both controllers should light on. In case they show OFF, proceed as instructed at point 3) of this paragraph. In case they show the refrigerated compartment temperature the unit will start operating normally. In case one or both of them do not light on, neither showing temperature nor OFF, call Service.

8. Routine maintenance

DANGER DISCONNECT THE UNIT FROM THE POWER SOURCE WHENEVER PERFORMING SERVICE/MAINTENANCE FUNCTION AND/OR CLEANING THE REFRIGERATED AREA

Clean the under counter and the external surfaces

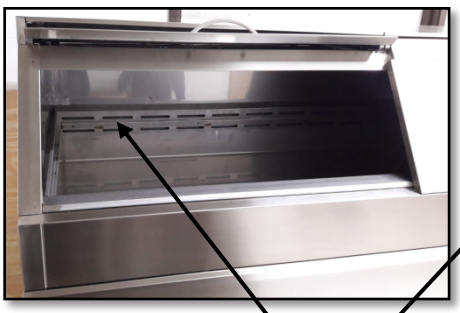
Disconnect the power cord (or alternatively set the main switch to OFF). Use a mild detergent, water, and wipe the gaskets. Make certain to also clean under the gasket to remove any mildew or residue. Wipe the floor and the interior fan covers. Using a mild, on-abrasive detergent and warm water, wipe the cabinet exterior.

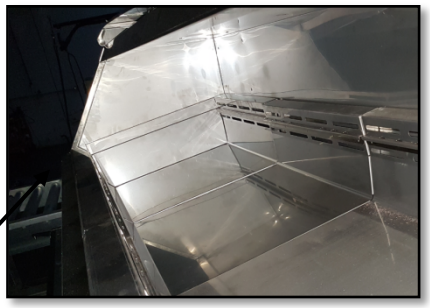
DO NOT RINSE DIRECTLY THE EVAPORATOR COIL COVERS.

REMOVE RESIDUAL OF WATER AND CLEANER MANUALLY, THE COUNTER COMPARTMENT HAS NO DRAINAGE PORT.

Clean the top and pan cooler compartment

Remove the pans and wipe the compartment. Remove the plug to drain residual water into the draining pipe. The drainage port can be also used to rinse the whole pan compartment. The drain will flow downward through the draining hose. Open the drain lock and drain the water into a pail or other external drainage system.



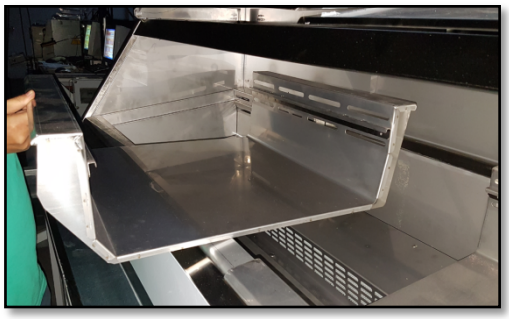


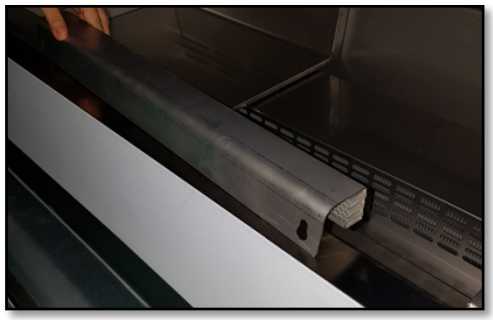
Removable Interior structure holding pans

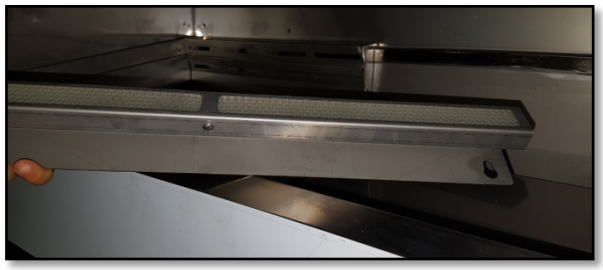
Drain lock handle

Remove and clean the honeycomb

It's recommended a weekly honeycomb cleaning. Remove the stain steel liner of the interior of the condiment rail and then remove the honeycomb holder. Unfasten the screw that fix up the honeycomb and take it apart. Wash it with mild detergent and warm water or dishwasher.

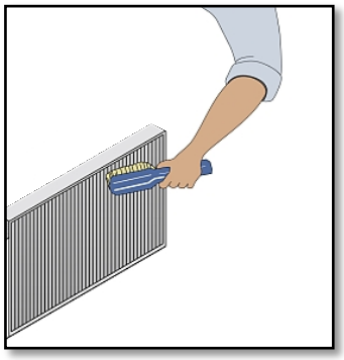


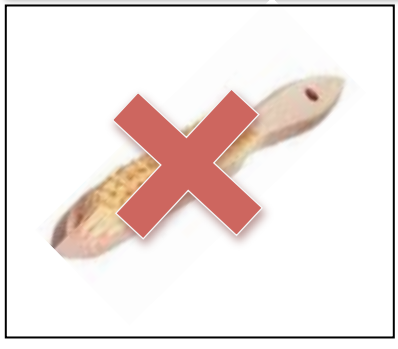




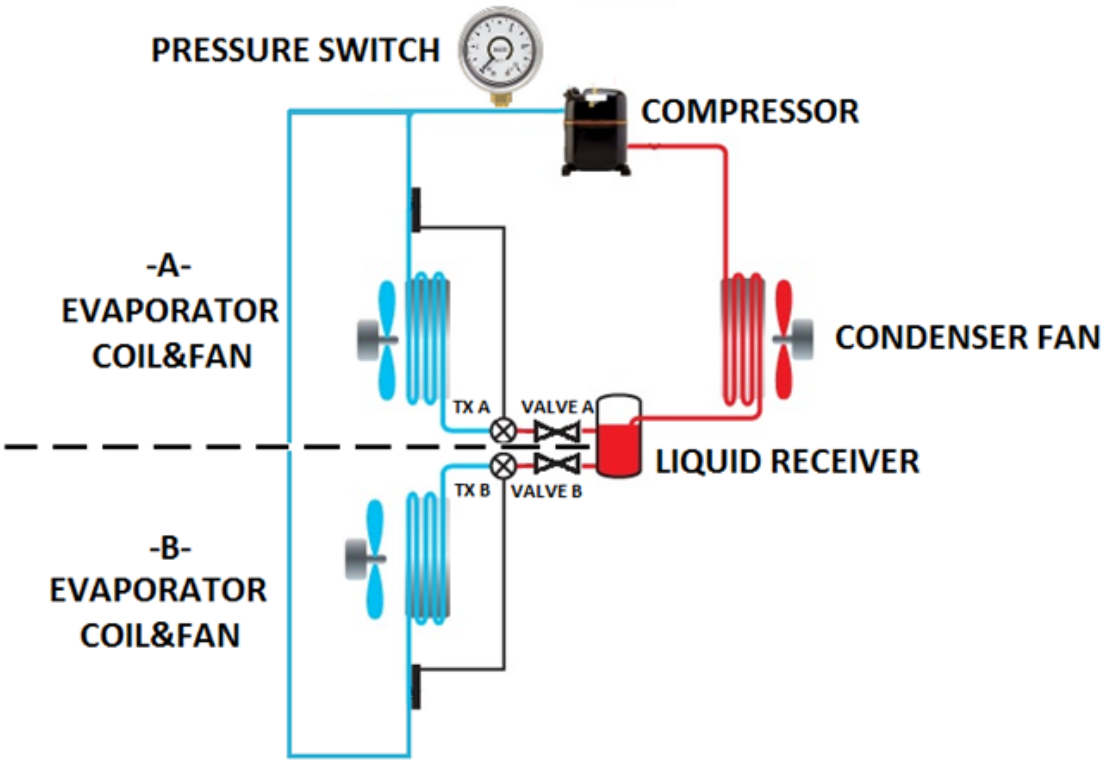
Clean the Condenser

Clean the condenser regularly, at least once in a month. Remove the front panel to access condenser coil. Use a soft brush, compressed air or a vacuum cleaner or a combination to remove dust and dirty. Do not use metallic or hard brush to avoid damaging the coil's protective paint.





9. Cooling units scheme



ELECTRICAL COMPONENT INSTALLED

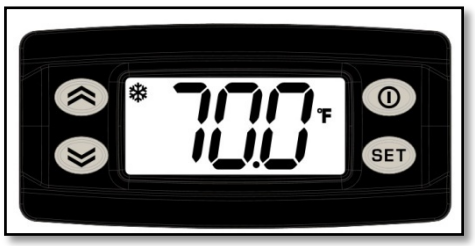
- COMPRESSOR
- CONDENSER FAN
- SOLENOID VALVE **A**
- SOLENOID VALVE **B**
- HOT GAS VALVE **B**
- EVAPORATOR FAN **A**
- EVAPORATOR FAN **B**
- SPEED FAN CONTROLLER
- CONTROLLER **A**
- CONTROLLER **B**
- PRESSURE SWITCH

PROBES

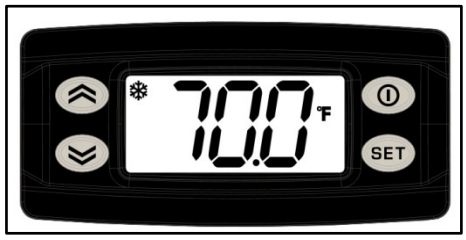
- AIR PROBE UNDERCOUNTER (PB1-Controller A)
- AIR PROBE PAN COOLER (PB1-Controller B)
- EVAPORATOR PROBE UNDERCOUNTER (PB2-Controller A)
- EVAPORATOR PROBE CONDIMENT RAIL (PB2-Controller B)

10. Sequencial functions

1) POWER ON (BOTH COMPARTMENTS NEED COOLING)

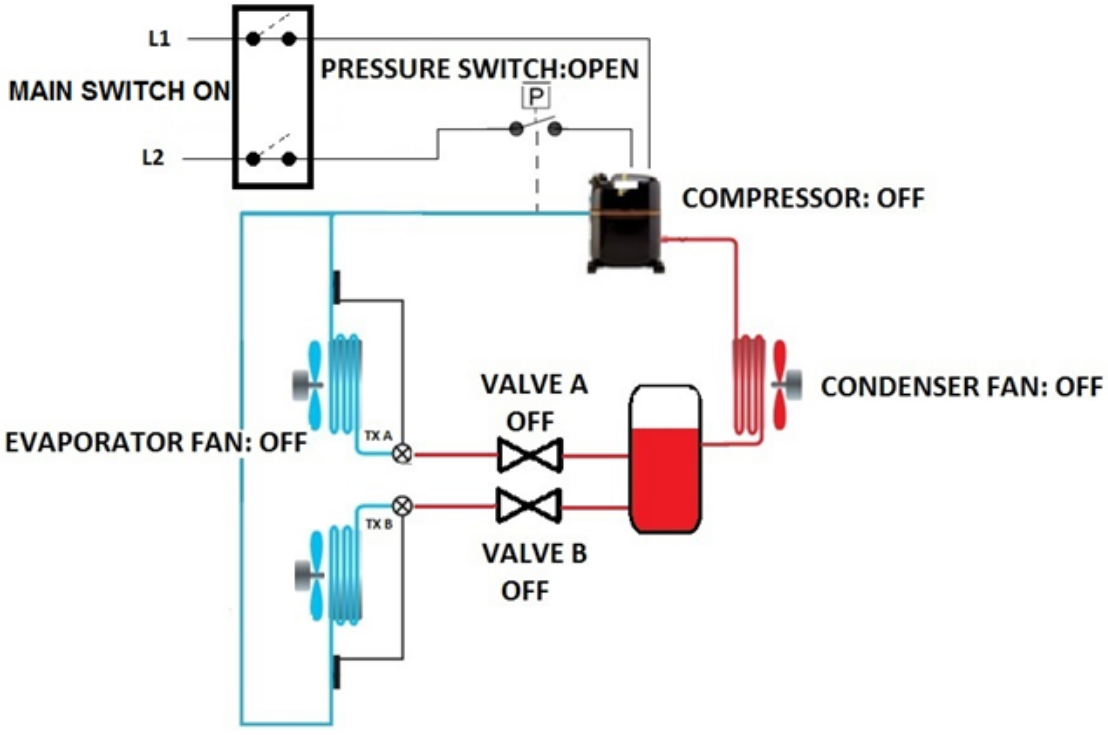


CONTROLLER A



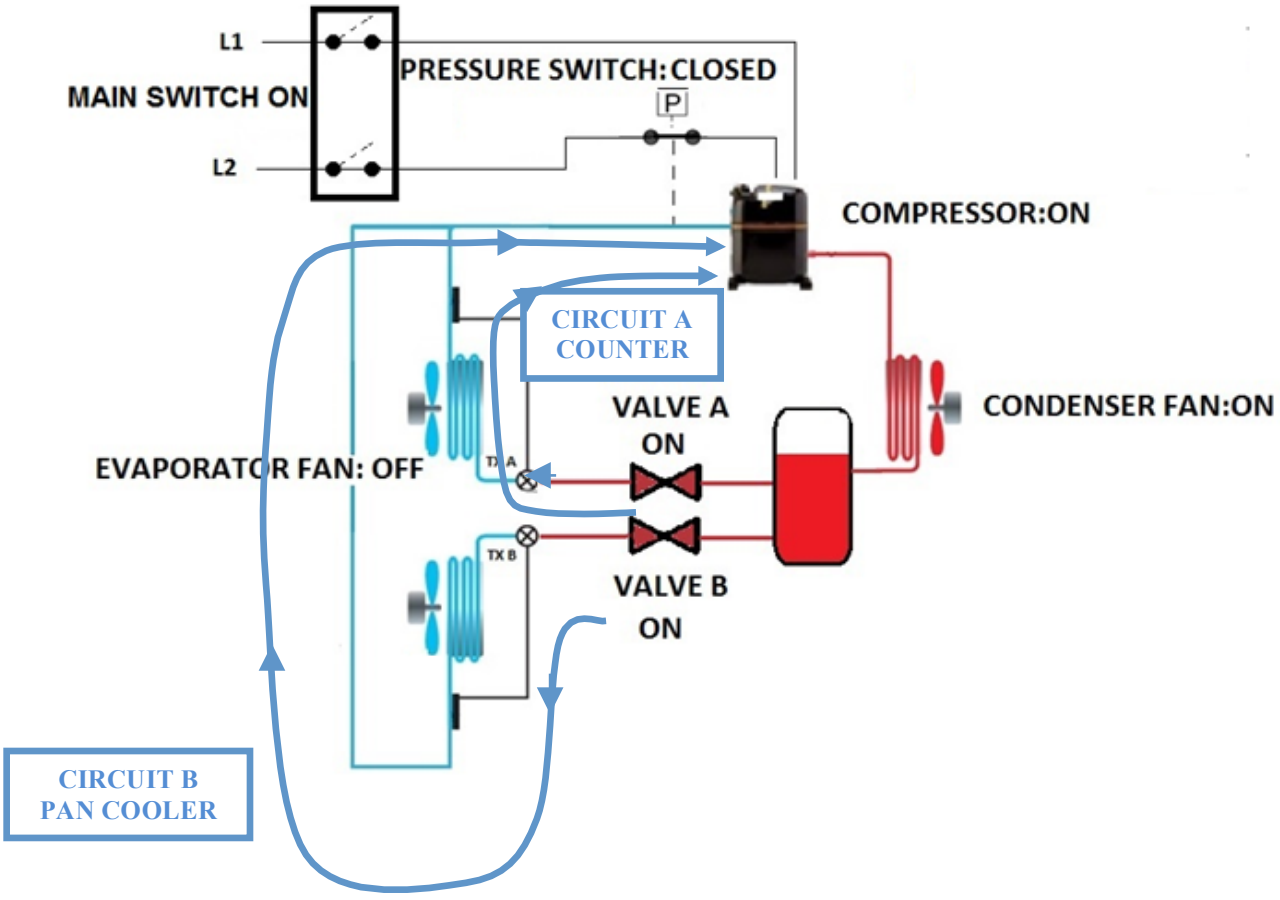
CONTROLLER B

As soon as Pan and Counter Compartments start asking cooling to the system (in the instance that the inner temperatures are higher than the set point), there is 1 minute delay during which the cooling LED will blink. During this delay both VALVE A and VALVE B will keep closed. Nevertheless, compressor may start up in order to pump down the system. **NOTE: Pressure in the low and high side may equalize after a long time of no operation. Therefore suction pressure may be higher than the pressure switch cutout limit, causing the compressor to run soon after the power cord is connected. This may or may not happen during the first minute of operation, depending on the period of shut off. In the below scheme pressure switch is assumed to be open, due to system already pumped down. Further, the Main Switch is assumed to be in position 1.**



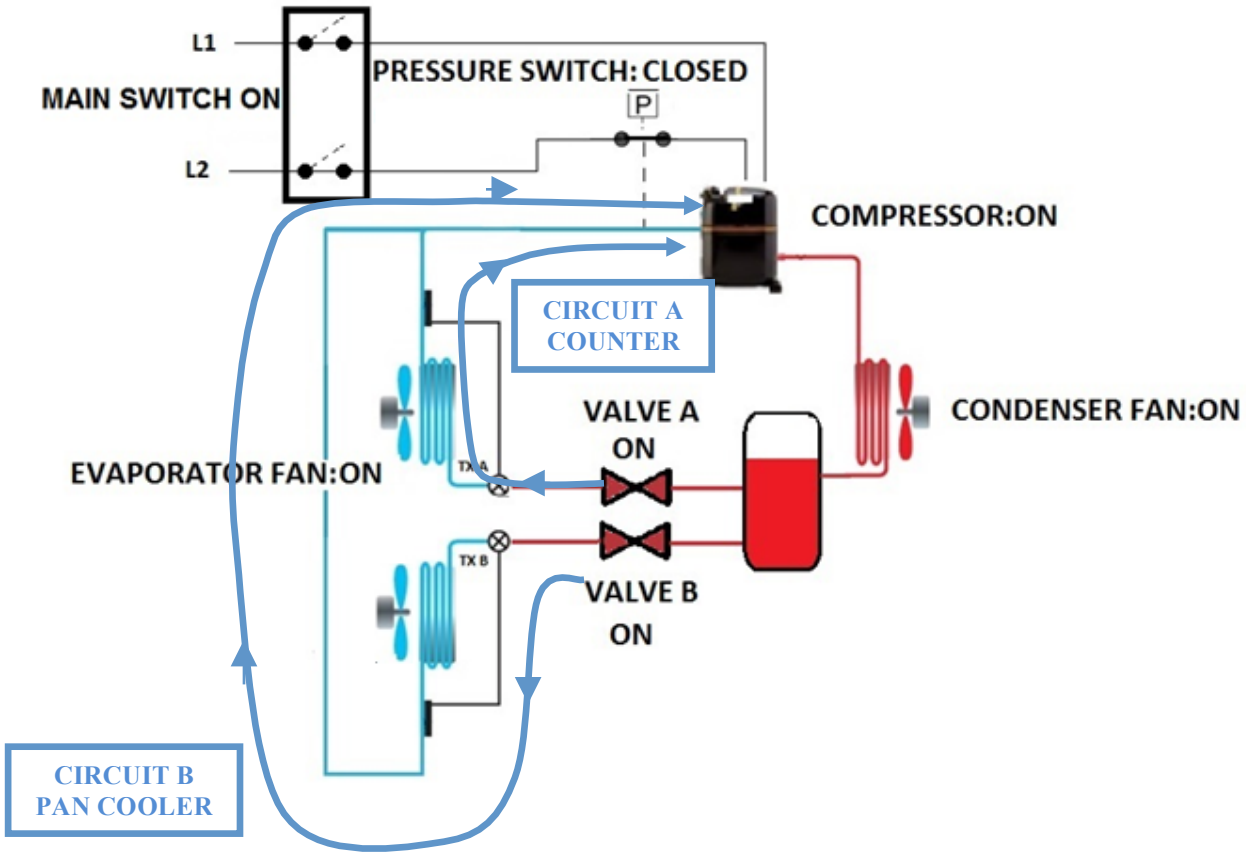
2) RUNNING CONFIGURATION AFTER 1° MINUTE DELAY

Assuming that temperatures in both compartments are higher than the set point, both A and B valves will open to circulate refrigerant in the respective cooling circuits. Opening the two valves will increase the suction pressure above 0 bar + differential, thus allowing the pressure switch to close the circuit and engage compressor. Evaporator fan are still OFF, due to not enough cold coil temperature.



3) EVAPORATOR FAN TURN ON

As soon as evaporator coil reaches a proper temperature, the evaporator fans will cut-in.

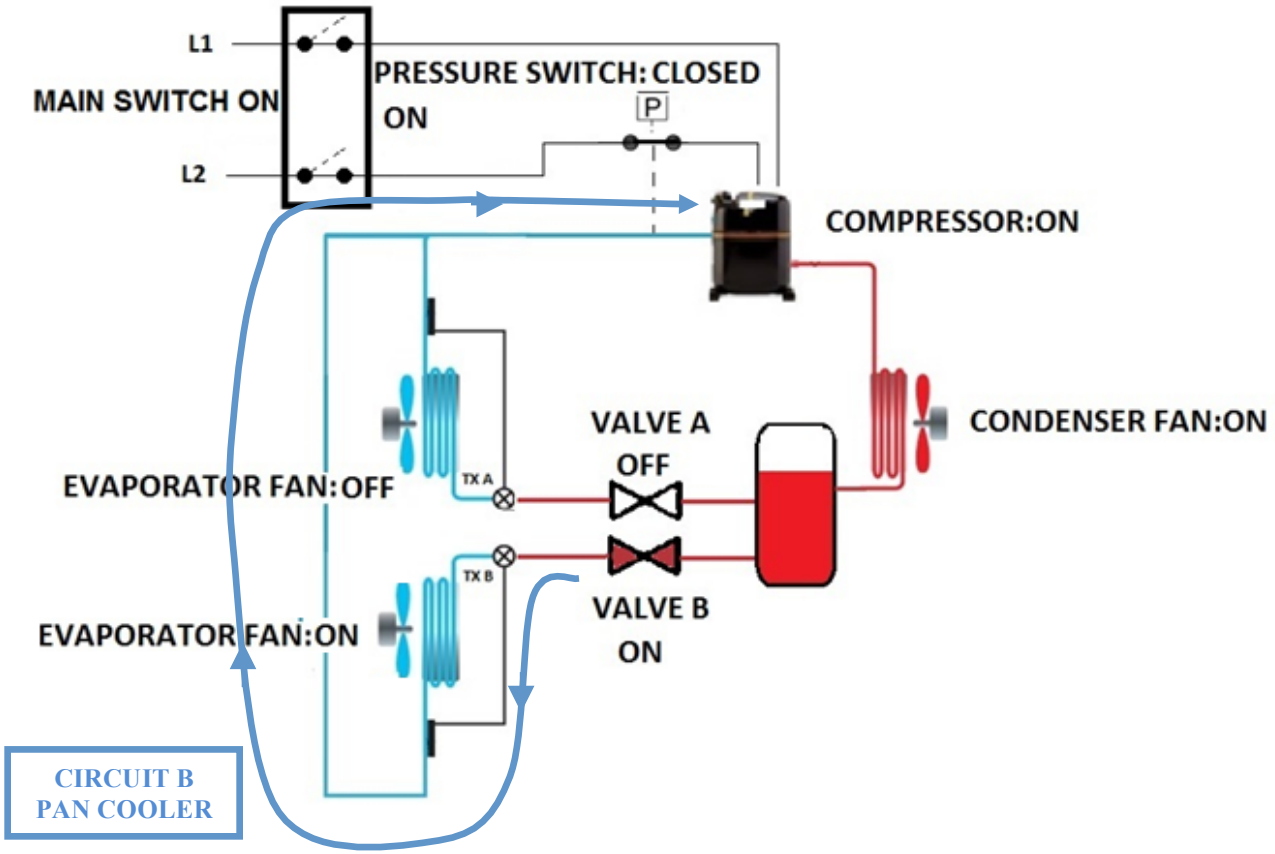


4) ONE OUT OF THE TWO COMPARTMENTS HAVE REACHED THE SET POINT TEMPERATURE (FOR INSTANCE COUNTER)

Solenoid valve A will de-energize and refrigerant will keep circulating only in circuit B (Pan Rail). Note that the FAN LED on controller A is turned off.

A CONTROLLER

B CONTROLLER

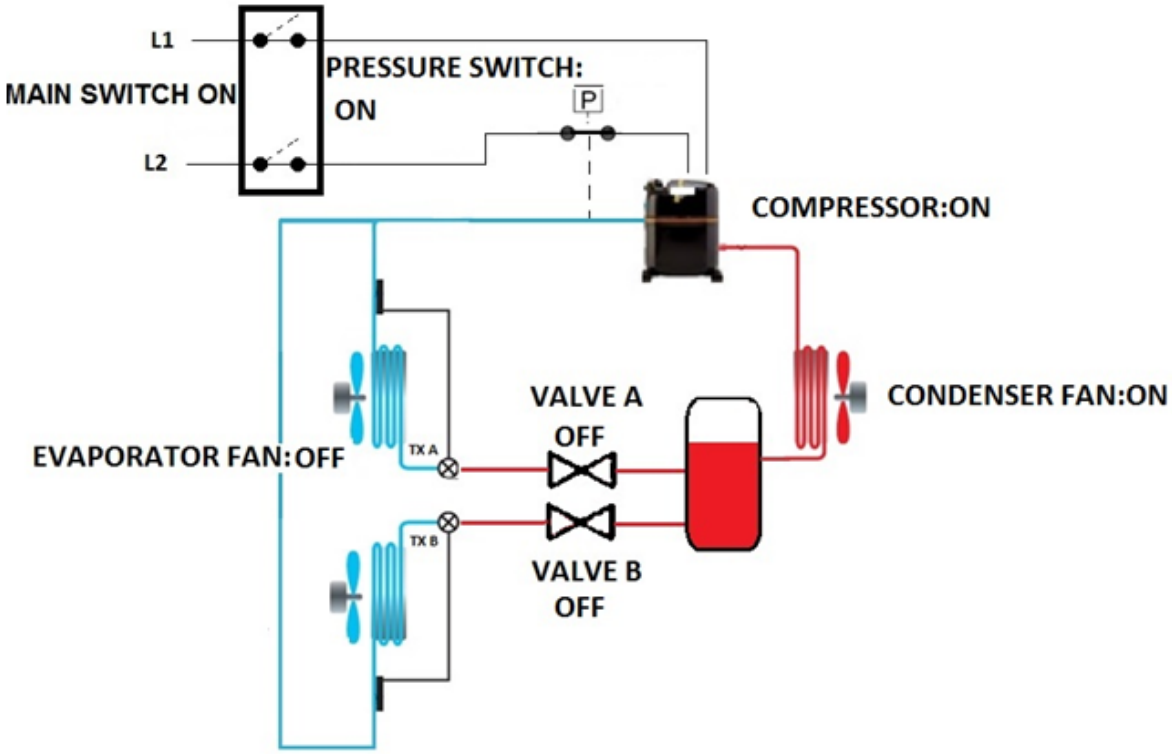


5) BOTH COMPARTMENTS HAVE REACHED THE SET POINT TEMPERATURE

Both solenoid valves will close. Compressor will still run in a "pump-down" configuration, sucking the entire refrigerant from the evaporating circuits and pushing it into the liquid receiver.

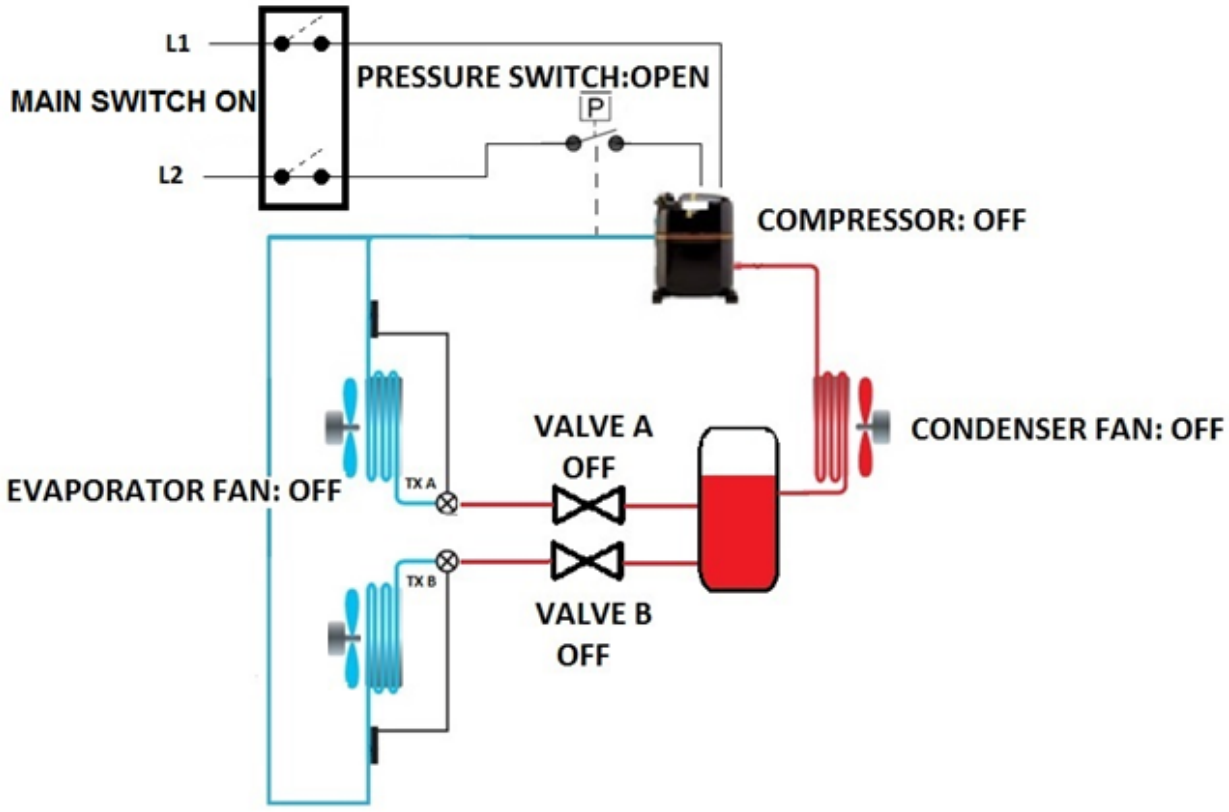
A CONTROLLER

B CONTROLLER



6) PRESSURE SWITCH OPENS

As the compressor is still running while valves A and B are closed, the suction pressure will gradually decrease until reaching to 0.10 PSI, thus causing the pressure switch to open and cut off both compressor and condenser fan. The system will remain in this configuration until one out of A or B valves will open again to claim refrigerant to its circuit, causing the suction pressure to increase and the pressure switch to close again in order to engage compressor and condenser fan.



11. Wiring scheme