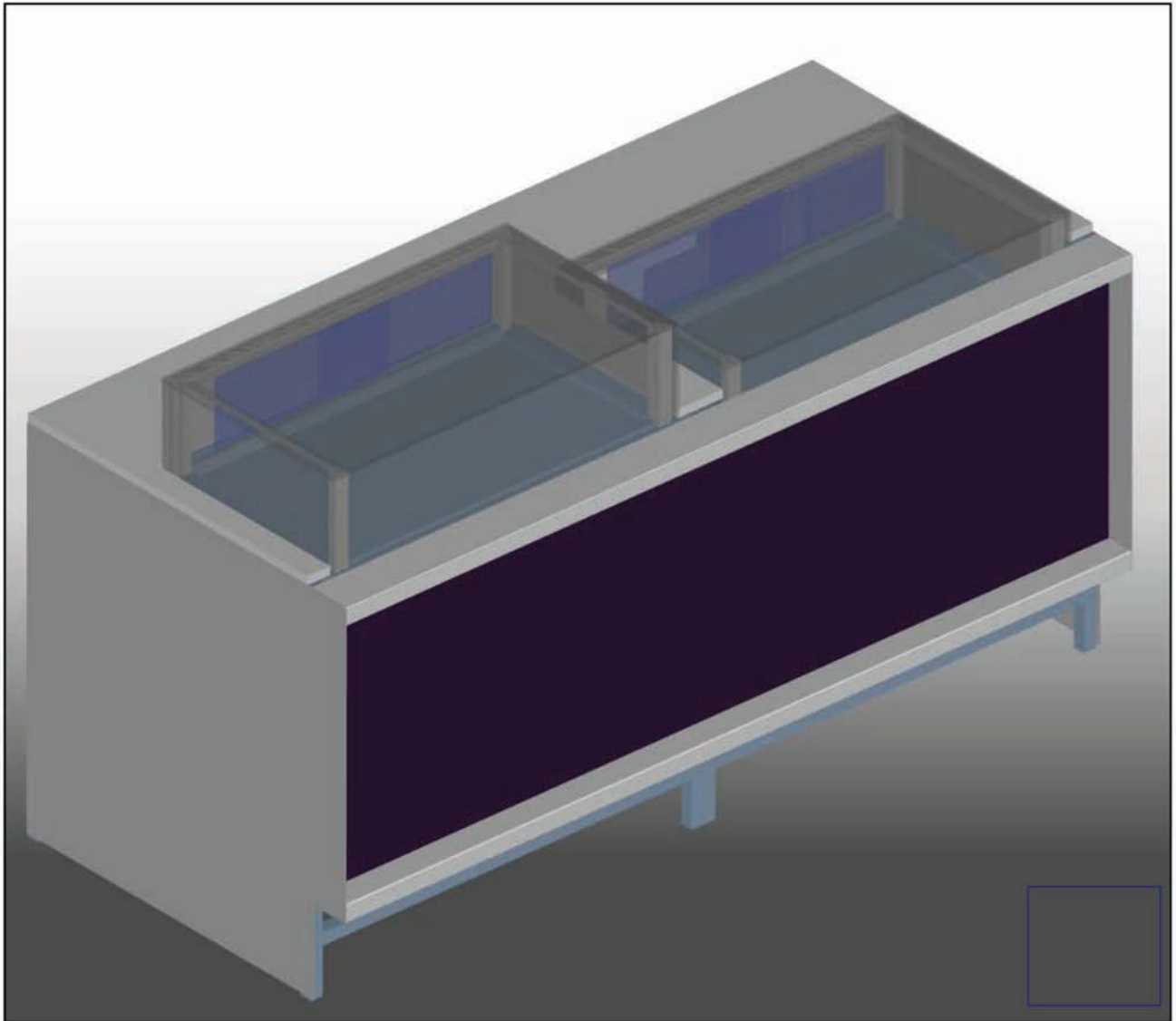




24H

N - RVS - RP - CS

C83 - C87 SERIES



- English -

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Dear Customer

This Manual or Technical Guide is a part of the Product and its target is to show use and maintenance of the cabinet. The operators have the responsibility of reading it and following the instruction reported on it. No other use of the display cabinet is allowed other than indicated in this manual.

This manual must be kept in good conditions and follow the cabinet during its entire operative life until dismissing, in order to have all the information needed for maintenance of the qualitative and safety standards.

The Firm will not assume any responsibility for damage to people, animals or things, caused by failure to observe the indications reported on the present Manual or by uses of the equipment for any purposes other than the ones for which it has been designed and sold.

For operator's safety, all equipment devices must be kept in constant efficiency.

1. STANDARDS AND REGULATIONS

1.1 WARRANTY

Products are covered by guarantee for 14 months running from delivery date. The validity of the guarantee is certified by the purchase receipt and the label attached to equipment and reporting the serial number.

Such documentation will have to be stored by the customer and referred to or exhibited in case of interventions requests during the guarantee period. Loss of such documentations or any modification thereof which might render it illegible, will lead to guarantee immediate annulment.

Possible damage or malfunctioning caused due to transport by third parties, by incorrect installation and maintenance, by negligence or carelessness of use and tampering by third parties, by components wear, modifications made without previous Clabo Group authorization, will not be covered by guarantee

To obtain a technical intervention under guarantee, a written request will have to be sent to the Sales Management Division or to the nearest dealer. According to its own unquestionable judgement Clabo Group will decide whether it is necessary to repair or replace the components or the product.

Clabo Group will not accept any ulterior/ different responsibility and this includes direct and or indirect damages. Cases of replacement of the equipment will not lead to extension or renewal of the guarantee condition.

Transport and/or shipping costs of components or products delivered under guarantee or replaced faulty components returned to Clabo Group are to be covered by customer.

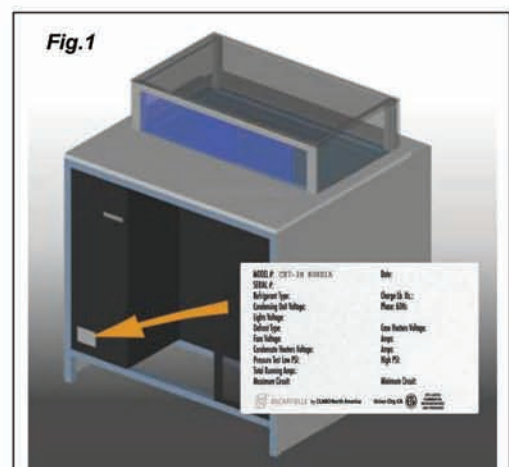
1.2 IDENTIFICATION

The SERIAL NUMBER on the plate positioned on the back (operator side) of the display cabinet (Fig.1) must be given when contacting the manufacturer or customer services.



WARNING:

Maintenance of the good conditions and legibility of the label applied to the cabinet is recommended. Don't tamper with the label.



1.3 TECHNICAL ASSISTANCE

In case of malfunctioning of the machine, before contacting technical assistance, try to fix the problem following the troubleshooting guide reported in the chapter n.6.

If the problem cannot be fixed using the troubleshooting guide, contact the authorized technical assistance using one of the following references:

- Phone: 1.800.672.2784 | 510.441.0441
- Fax: 510.441.0401
- Email: sales@clabona.com

Or using Internet web site: www.clabona.com | www.otl-usa.com

It is necessary to communicate to the technical assistance:

- Cabinet serial number (as described in the previous paragraph)
- Cabinet Model, as reported in the label
- A detailed description of the problem encountered and of the interventions al right made to fix it.



ATTENTION:

Don't contact non-authorized technicians.

2. DATA AND TECHNICAL CHARACTERISTICS

2.1 MAIN CHARACTERISTICS

Bianca – Display Case model is a family of product having different functioning and uses:

- *BIANCA NEUTRAL (N)* is intended for exposition of products that do not need to be maintained at temperatures different that the one in the ambient in which the cabinet is installed.
- *BIANCA COOLED (RVS)* is designed for conservation of products at positive temperature (TN) not below +4/+6°C. Systems are built in order to function in environmental conditions not above Class 4 (Ambient temperature 30°C, Relative Humidity 55%), defined by European Standard UNI EN 23953-2 par. 5.3.1.3.
- *BIANCA COOLED “PRALINE” (RP)* is intended for conservation of chocolate products, typically at a temperature not below than +14/+16°C and relative humidity of 50% RH. In this case too system is designed for working in Class 4 (as described above)
- *BIANCA Hot Cabinet (CS)* is designed for exposition of product at a temperature not above +70/+72°C.

Insulation:

Cabinet thermal insulation with external ambient is obtained by Polyurethane Foam.

General Functioning

BIANCA COOLED CABINET:

Cooled cabinets can be divided in these models:

- RVS: Ventilated cooling, Standard version
- RP: Ventilated cooling with humidity control for Praline

In the following paragraphs the main characteristics and differences are described. Please refer to the product you purchased, looking at label reported in Fig.1.

- Refrigeration is Ventilated. Evaporator and fans are installed under main deck. Refrigerated air circulation outlet is under worktop (staff side) and inlet under front glass (customer's side).

**WARNING:**

In cabinet with ventilated refrigeration please take care about not to close inlet/outlet air grids. In event of blocking air circulation inside the cabinet, functioning of the machine is no more assured.

- Generally refrigeration is guaranteed only on main deck: shelves (where present) are neutral i.e. at external air temperature.
- **RP:** the system is similar to RVS model: evaporator and fans are installed under the main deck. In addition, temperature and humidity are controlled through the use of a probe and an additional electronic control.

In all versions cooling system is equipped with **hermetic** compressor. Condensation Units are installed on the machine, in a vane housed in the basement, or can be remote, within maximum 20mt of linear pipes far from the cabinet. In this case, cabinet and unit are delivered separately and without refrigerant.

**WARNING:**

Installation and Gas Charge of cabinets with remote groups must be made by the customer. Please refer to the following chapters of the present manual.

The cabinet has an automatic defrosting system: at periodic intervals the cooling systems stops and the ice on evaporator melts naturally.

BIANCA NEUTRAL (N):

Cabinet is not refrigerated at all. All expositive surfaces must be considered at the temperature of the ambient at which the cabinet is installed. Control panel has no electronic display and is equipped only with switch for lights

BIANCA Hot Cabinet (CS):

The cabinet is equipped with heated main deck by means of an electrical resistance. Other surfaces (i.e. shelves) are at ambient temperature. Heating of conserved products occurs by direct contact.

Structure:

All glass surfaces are tempered and in some cases heated to avoid condensation problems (cooled models).

Cabinets are equipped with Plexiglas sliding doors.

As Optional, cabinets can be equipped with mobile display case: the structure is raised or lowered depending on the use desired. The movement is realized through the use of hydraulic pistons. The motion control is located on the rear panel.

Electronic control:

The machine is equipped with an electronic control that manages the cooling system and the automatic defrosting, heating elements (to avoid water condensation problems) and lights. User interface is made by a 6-keys keyboard with a 3-digit display placed on cabinet back panel.

RP Version is equipped with an additional 3-digit display and control for relative humidity.

All cabinets are equipped with a two-button switch with safety key for activating the movement of the case.

Lightning:

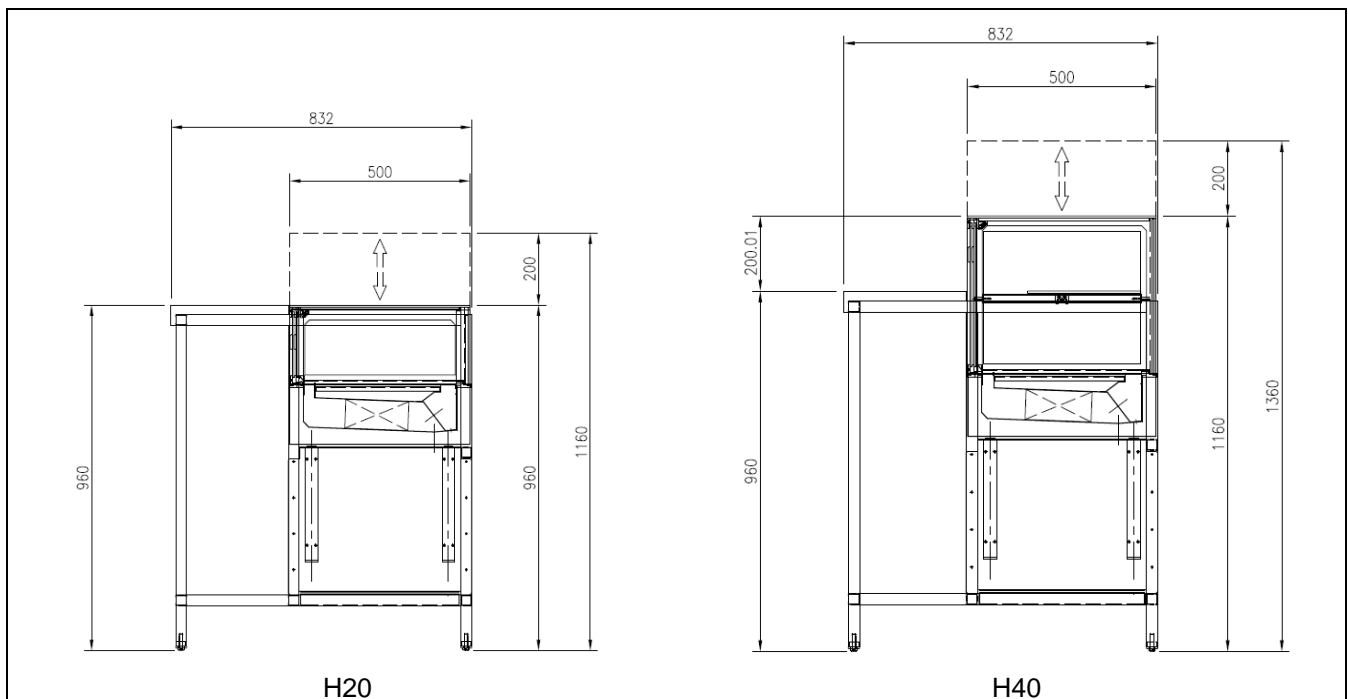
Lightning system is only equipped with high-luminosity LED.

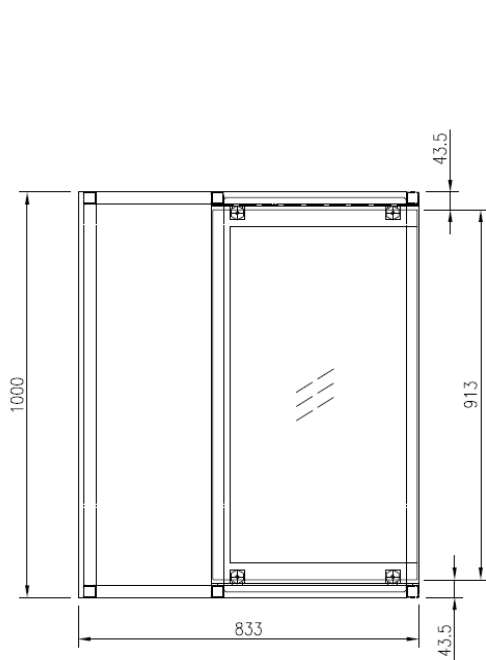
Water drainage:

Only for refrigerated models: there is external drain pipes for defrosting water discharge: it must be connected to sewer during installation of the cabinet. Electrical condensating pan is available as optional: in this case no drain pipe exits from the cabinet.

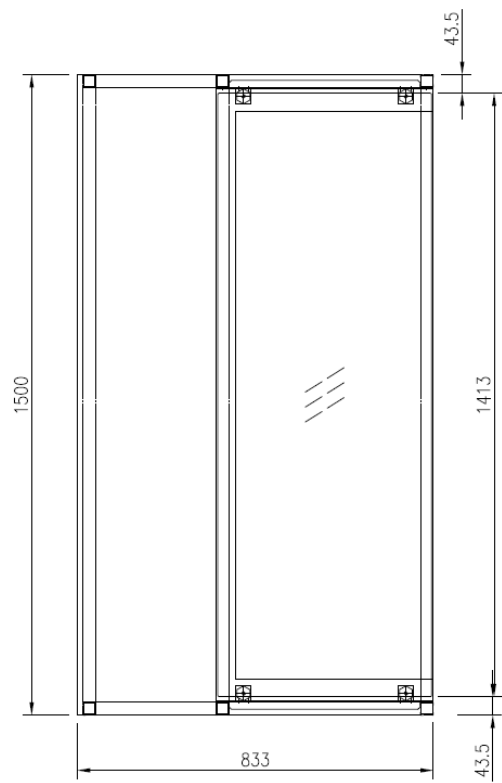
2.2 TECH DATA

Sections

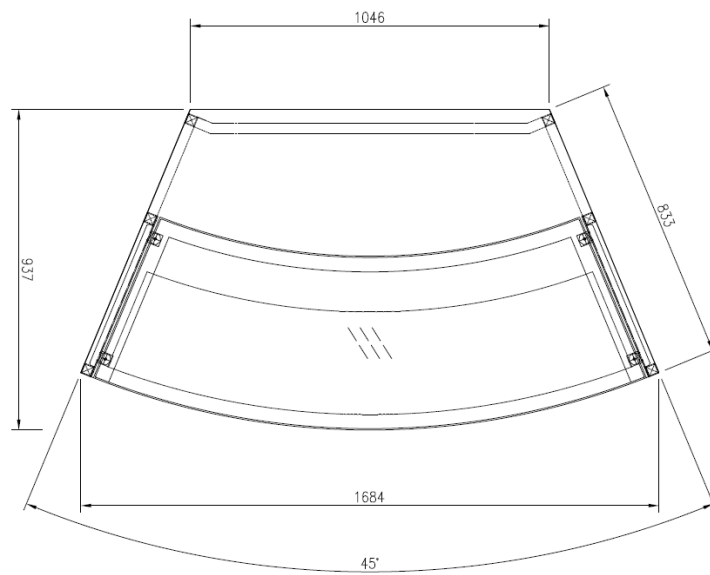




MODULO 1000

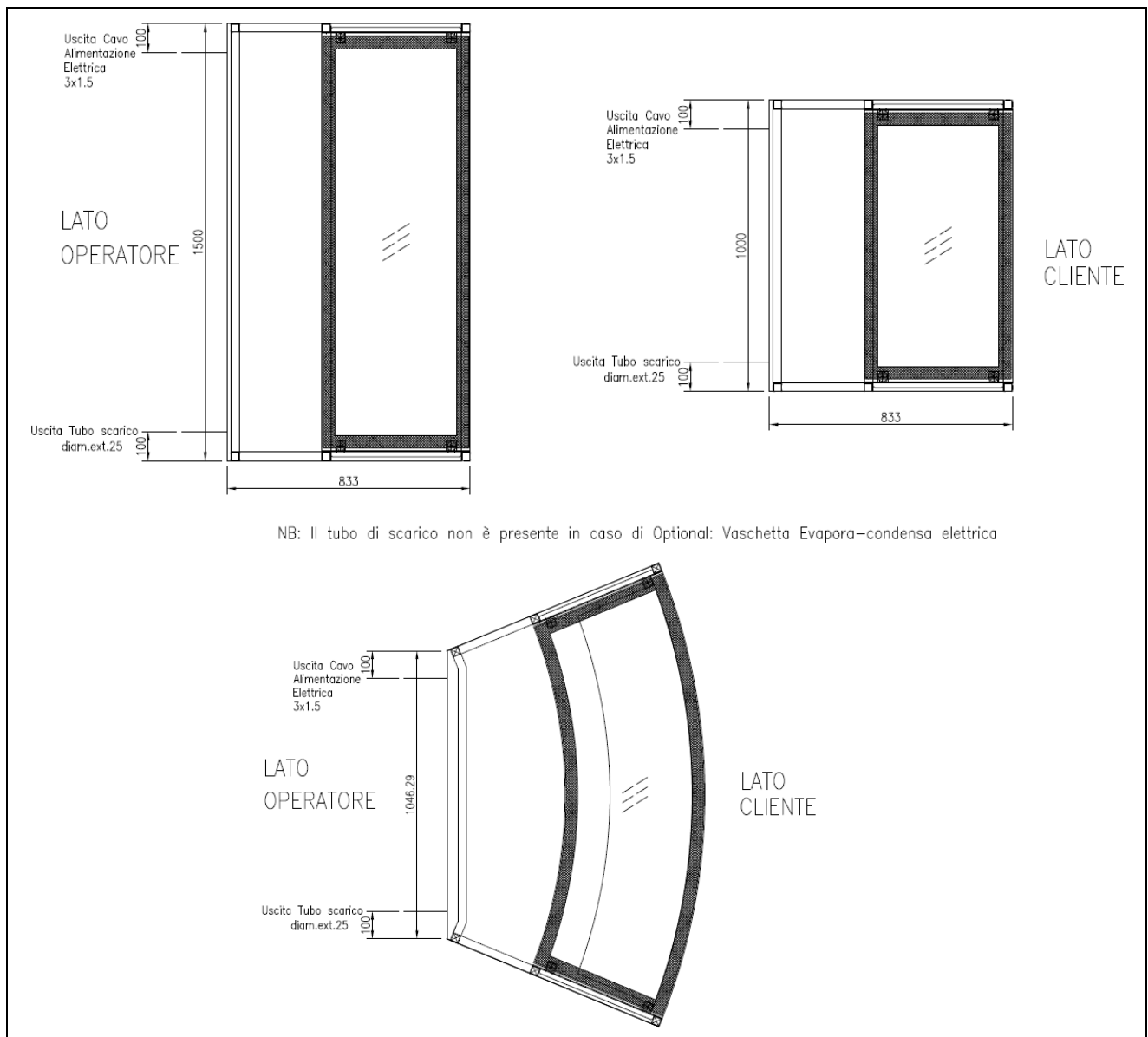


MODULO 1500



A45

Position for Drains and Electrical connections



Tech Data Table:

BIANCA			Weight	Overall Dimensions [mm]			Supply	Working Temp.	Gas Type	Total Power	Rated Current
Mod.	H	L	Kg	P	L	H*	V / ph / Hz	[°C]		[W]	[A]
Neutral	H20	1000	130	833	1000	960 / 1160	230/1/50	---	---	30	0,2
		1500	190	833	1500	960 / 1160	230/1/50	---	---	45	0,2
		A45	240	937	1684	960 / 1160	230/1/50	---	---	36	0,2
	H40	1000	140	833	1000	1160 / 1360	230/1/50	---	---	36	0,2
		1500	200	833	1500	1160 / 1360	230/1/50	---	---	54	0,3
		A45	250	937	1684	1160 / 1360	230/1/50	---	---	63	0,3
RVS	H20	1000	170	833	1000	960 / 1160	230/1/50	+4/+6	R404A	371	2,3
		1500	230	833	1500	960 / 1160	230/1/50	+4/+6	R404A	444	2,6
		A45	280	937	1684	960 / 1160	230/1/50	+4/+6	R404A	435	2,6
	H40	1000	180	833	1000	1160 / 1360	230/1/50	+4/+6	R404A	377	2,4
		1500	340	833	1500	1160 / 1360	230/1/50	+4/+6	R404A	453	2,7
		A45	290	937	1684	1160 / 1360	230/1/50	+4/+6	R404A	462	2,7
RP	H20	1000	170	833	1000	960 / 1160	230/1/50	+14/+16	R404A	871	4,5
		1500	230	833	1500	960 / 1160	230/1/50	+14/+16	R404A	944	4,8
	H40	1000	180	833	1000	1160 / 1360	230/1/50	+14/+16	R404A	877	4,5
		1500	340	833	1500	1160 / 1360	230/1/50	+14/+16	R404A	953	4,9
CS	H20	1000	130	833	1000	960 / 1160	230/1/50	+70/+72	---	1230	5,4
		1500	190	833	1500	960 / 1160	230/1/50	+70/+72	---	1845	8,1
	H40	1000	140	833	1000	1160 / 1360	230/1/50	+70/+72	---	1236	5,4
		1500	200	833	1500	1160 / 1360	230/1/50	+70/+72	---	1854	8,1

* The second height refers to mobile version, when the structure is completely raised.

3. RECEIPT AND INSTALLATION

**WARNING:**

Before acceptance of the equipment, control the following:

- the package must be intact and the products haven't to be damaged during transport.
- the shipped goods correspond to the order specifications
- the presence and integrity of accessories
- possible damages occurred on products must be reported on the transport document for the compensation by the transport agency

**WARNING:**

This product must be installed by qualified personnel. During installation the operators involved must wear individual protection devices.

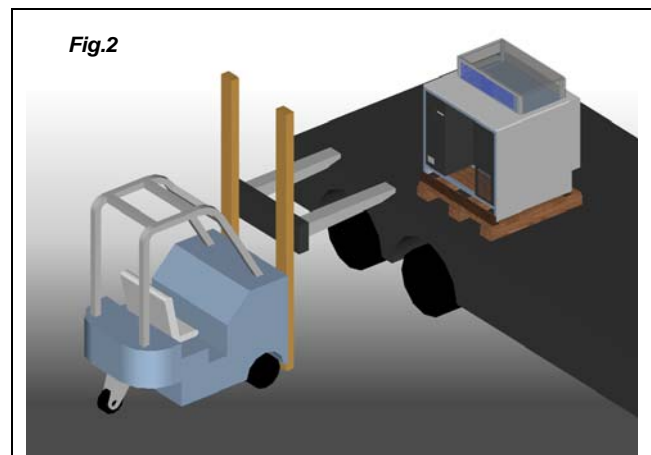
**WARNING:**

The installation of Remote Condensing Units (where available), must be performed by qualified personnel, following the instruction reported on manual delivered with the condensing unit itself and supplied by the factory.

3.1 LIFTING AND MOVEMENT

The product is to be lifted by a transport vehicle using transport pallets, in the following manner:

- Position the forks at the level of the vehicle (e.g. lorry).
- Move forward with the transport pallet so as to insert the forks under the cabinet.
- Ensure that the cabinet is perfectly balanced on the forks before lifting it (fig.2).

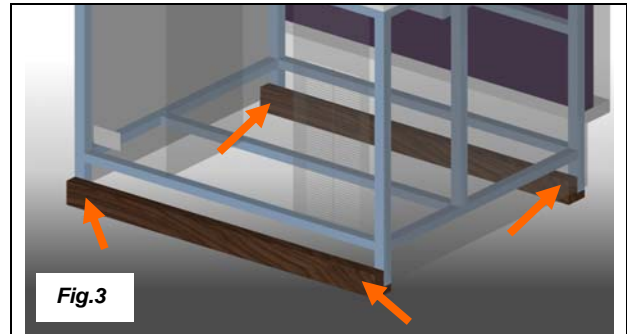


**WARNING:**

During the package wasting, using devices such as cutter could cause injuries to people or damages to product.

In addition, avoid to smear against the product with metallic parts such as watches, buckles, chains, rings and so on that could produces scratches.

- The machine is delivered with wooden bar fixed on the basement: after removing cabinet from pallet, movement of the cabinet must be done manually.

**WARNING:**

For cabinet movement don't lean on or pull glass surfaces for they are fragile.

- In order to remove the wooden bars there are n.2 screws for each one, accessible from front side of cabinet (red arrow, fig.3). In order to get access to staff's side wooden bars it necessary to operate from cabinet's lateral sides. Once removed the screws it is necessary to tilt slightly the cabinet, exerting great care, in order to remove the bars.

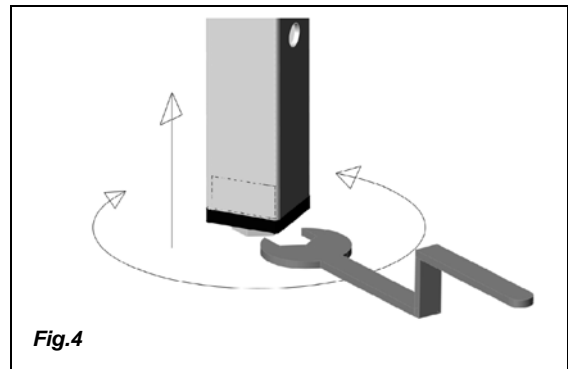
**WARNING: TURN OVER OR SLIP DANGER**

Don't lift the cabinet more than 10 cm above the ground..

3.2 POSITIONING

For a correct positioning follow these instructions:

- Position the cabinet in such a way as to leave sufficient space for use and maintenance in conditions of safety as foreseen by the UNI EN 12100:2010 norm.
- Ensure the existence of a suitable earthing plant as foreseen by the European Norms.
- Once the cabinet is placed in the desired area, it must be put horizontally through the adjustable feet (Fig.4).

**WARNING:**

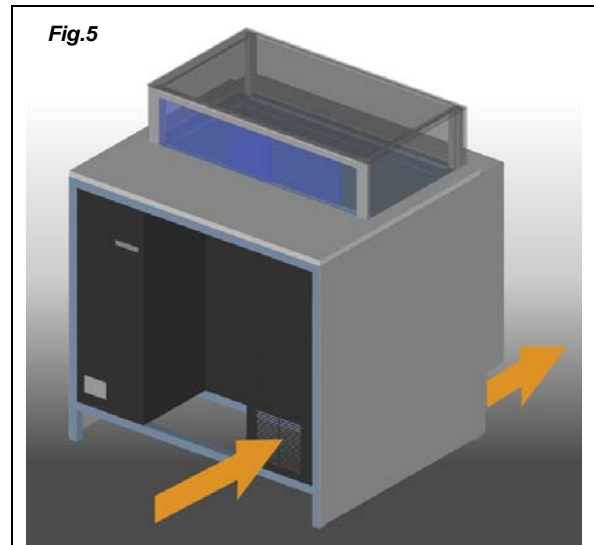
Before positioning the cabinet, assure that the floor is suitable for supporting its weight.

3.3 ENVIRONMENTAL SPECIFICATIONS FOR COOLED MODULES

When positioning the display cabinet take into consideration that its operability is guaranteed in the following environmental conditions: temperature <math><30^{\circ}\text{C}</math> and relative humidity <math><55\%</math>. (class 4, UNI EN 23953-2).

It must also be checked that:

- there is sufficient circulation of air around the display cabinet but not strong currents;
- the display cabinet is not near any hot air sources;
- the display cabinet is not exposed to direct sunlight;
- the cooling air grills of the condenser are not blocked (fig. 5);
- air conditioning or heating in the room are not directed onto the display cabinet.



The above-mentioned indications must be respected to prevent malfunctioning, which will not be covered by the warranty.



WARNING:

During working operations, there is an air exchange between the cabinet refrigerating system and the surrounding environment. For this reason don't install the cabinet in ambient subjected to pollution or having atmospheres with substances in concentration or quantity out of the limits regulated by actual law for health care.

3.4 CANALIZATION

Before performing canalization check that the showcases are at the same height by adjusting the special feet and that both showcases are laid flat, i.e. horizontally levelled.

To carry out the showcase's canalization (Picture 6), push the showcases close together and check that the basements are at the same height. Then join the two basements using delivered bolts and the prepared holes. Use n.2 screws on staff's side and n.2 screws on customer's side.

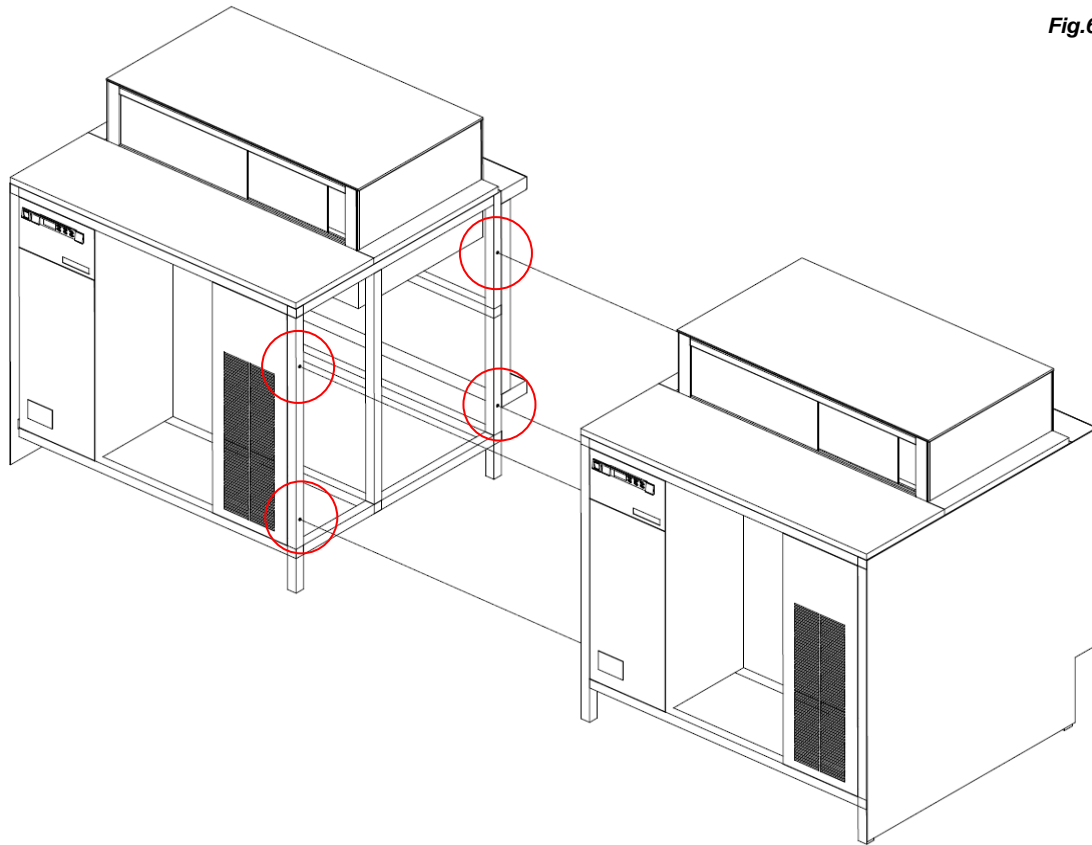


Fig.6

3.5 PLUMBING CONNECTION ON REFRIGERATED MODULES

Only for cabinets having water-cooled condenser or mixed condensation, it is necessary to connect the pipes of water inlet and outlet to the water supply. It is possible to recognize the inlet pipe because it is covered with black thermal insulation.



WARNING:

Before switching the cabinet on, be sure that the manual taps in the water line are open and the water flows regularly. Then calibrate the presso-static water valve in function of the water external net pressure and temperature.



WARNING:

Use of not-decalcified water could cause irreparable damages to the system.
Use exclusively filtered and decalcified water.



WARNING:

Inlet water pressure can't exceed 10 bar.
Inlet water temperature shouldn't exceed 20°C in order not to decrease machine's performances.

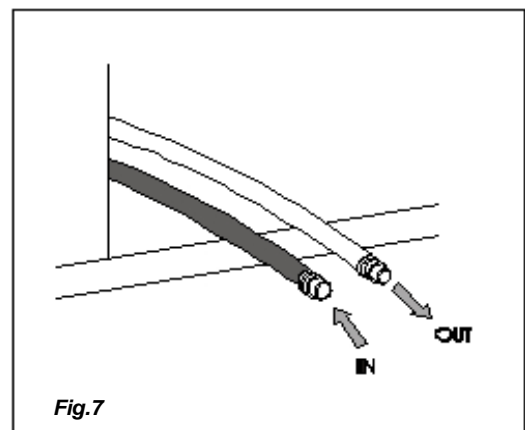


Fig.7

3.6 ELECTRICAL CONNECTIONS

Before installation, check that a suitable earthing plant is present as envisioned by the regulations in force in the country of sale.

Check that the mains voltage is compatible with the features stated on the plate positioned on the operator side of the display cabinet (see fig. 1). Also check that the line upstream from the display cabinet is appropriately dimensioned to support the load of the display cabinet itself.



WARNING:

Voltage fluctuation above 10% of the nominal voltage stated on the plate can cause permanent damage to the compressor and other electro-mechanical equipment. In this case they are not covered by the warranty.

Respect national regulations for electrical installations.

Position the master switch in the OFF position.

The display cabinet is supplied with a 3-wire cable;

- Yellow-green = Earth
- Blue = Neutral
- Brown = Live (phase)



WARNING:

Never cut or remove the yellow-green cable mentioned above: *risk of Electrical Shock*

The three supply cables must be connected to the main network, which must be equipped with an efficient earthing network, in accordance with the national and local norms (where existent) for electrical installations and they must be suitable for the electrical absorption of the display cabinet. Please refer to the table in correspondent chapter of the present manual, absorption column.



WARNING:

The electrical connection to the network must be carried out by means of the three wires included, the central plant to which the cabinet is connected must also have a switch with contact openings measuring at least 3mm and protected by fuses.



WARNING:

Apply an adequate anchoring method to the supply cable in the connection box, making reference to the table outlined below.

NOMINAL CURRENT [A]	NOMINAL SECTION [mm ²]	
	FLEXIBLE CABLES [mm ²]	CABLES FOR EARTHING [mm ²]
3	0,5 ÷ 0,75	1 ÷ 2,5
3 ÷ 6	0,75 ÷ 1	1 ÷ 2,5
6 ÷ 10	1 ÷ 1,5	1 ÷ 2,5
10 ÷ 16	1,5 ÷ 2,5	1,5 ÷ 4
16 ÷ 25	2,5 ÷ 4	2,5 ÷ 6
25 ÷ 32	4 ÷ 6	4 ÷ 10
32 ÷ 40	6 ÷ 10	6 ÷ 16
40 ÷ 63	10 ÷ 16	10 ÷ 25

3.7 WATER DRAINAGE

If the cabinet is supplied with external drain pipes for collecting water deriving from defrosting cycles or periodic cleaning, be sure to predispose adequate pipes connection to main sewer.

3.8 REMOTE COMPRESSOR(S) INSTALLATION

If condensing units are remote, they will be delivered on a separate crate. As standard these condensing units are suitable for installation up to 20mt far from the cabinet: by this specification different type of compressor will be delivered.

For installation, use and maintenance of remote condensing units please refer to the special manual delivered with the unit itself.

3.9 AESTHETICAL PANELS FOR MODULES WITHOUT COVERS

In event of BIANCA cabinet with every kind of system is ordered without external cover, the machine is delivered with accessible electrical and refrigerating system parts.



WARNING:

Cabinets delivered without covers during installation must necessarily be closed with panels or closures made by customer, in order to close free access to live parts like electrical components or fans. All point of access to movable parts and live parts must be closed by means of panels dimensioned in according to European Standard UNI EN 13857.

3.10 END OF SERVICE AND DISPOSAL

Packaging

Do not throw away part of the display cabinet packaging but separate it according to the type of material in question (cardboard, wood, steel, polyester, etc...) and dispose of it according to the current laws in vigour in the country of use.

End of service of display cabinet

When the display cabinet has reached the end of its life span:

- Remove the refrigerant from the refrigerator circuit of the display cabinet.
- Empty it of all of the oil it contains
- Remove all of the rubber parts (e.g. O-ring, rubber trimming).
- Send it off to be scrapped.



Important information for the User for the Purpose and effect of the WEEE Directive 2002/96/CE and subsequent amendments 2003/108/CE concerning Waste Electrical and Electronic Equipment: this equipment has been marked with the above crossed waste bin symbol.

The symbol of crossed waste basket reported on the machine or on the crate indicates that the product at the end of its life must be picked up separately from other waste. The dispose of machine must be done by specifically authorized WEEE disposal centre. User can find out information by its dealer / agent / manufacturer.

Disposal of the product without respecting the mentioned directives and standards means the application of sanctions provided for actual law.

4. FUNCTIONING

4.1 GENERAL USE RULES

BIANCA modules are designed in function of the temperature of the product to be conserved:

Type	Inner Temperature
RVS	+4/+6°C
RP	+14/+16°C – 55% RH
CS	+70/+72°C
N	Ambient

Before introducing the product in the cabinet it is necessary to wait **60 minutes** from the cooling start-up, in order to permit to the system to reach setpoint temperature. This interval of time could vary depending on environmental condition around the machine.



WARNING:

Displayed temperature is the value read by the cabinet probe (cooled air or heated deck): so this is the temperature of the air used for refrigeration. For this reason it could be different than the temperature of the conserved product.



WARNING:

The conserved product must be introduced in the refrigerated region using suitable alimentary containers. If the conserved products exits from their containers, this cannot be sold or used: it must be removed and wasted.

For the correct functioning of the *BIANCA cooled modules*, it is necessary to verify that, during its operations, no ambient elements have an effect on its functioning; in particular it is necessary to control the follow:

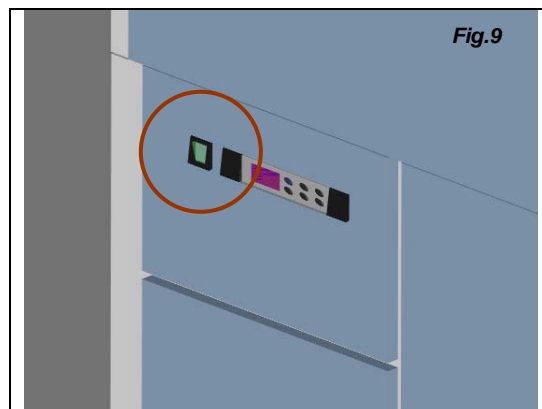
- Air circulation around the cabinet should be sufficient to guarantee the correct functioning of the condenser (in case of inner condensing unit);
- For the same reason take care not to obstruct the back grid (staff's side) and the front one (if unit is on-board).
- No strong air currents or sources of hot air near the cabinet should interfere with inner ventilation, direct responsible for ice-cream cooling and maintenance at low temperature: this could lead to product melting.
- For the same reason eventual air conditioning or heating vents of the shop have not to be directed to the cabinet and interfere with inner ventilation.
- Direct sun light shouldn't hit the cabinet in any time. Sun radiation could damage the conserved product.

**WARNING:**







In case of damage of the conserved product, this one cannot be used or sold: it must be removed from the cabinet.

4.2 START UP

1. Operate the central electrical equipment's main switch.
2. Operate the showcase's main switch behind the back protection board. Remove the fixing screws from the back board, as shown in picture 9, position B, and set the main switch on the "1" position (Picture 9 - red circle) by activating the showcase's electrical power supply.

**4.3 GENERAL CONTROL BOARD**

Compact Control
XW20L
(183x38 mm)

-  To visualise or change the set point. When programming this button is used to select a parameter or to confirm a value.
This button is used during programming for going through the parameter codes or for increasing their value.
-  If pressed and then released you will visualise the controlled section (LOC, SE2, ALL).
If pressed continually for 3 seconds this button allows you to gain access to the sections menu.
-  This button is used during programming for going through the parameter codes or decreasing their value.
-  Keep this button pressed for 3 seconds to start the manual defrosting cycle.
-  Use this button to turn the display cabinet lights on and off.
-  Turn the cooling system on/off.

Keys Combinations:

Press and hold together for three seconds: enter the programming mode.



Press and release together : exit from programming and return to temperature visualization.

There are a series of luminous points on the display, the meaning of which you will find in the table below:

LED	Mode	Function
❄	ON	Compressor on
❄	FLASHING	Programming phase (flashing with LED ❄)
❄	ON	Defrosting active
❄	FLASHING	Dripping time underway
🔊	ON	ALARM SIGNAL - In the “Pr2” programme it indicates that the parameter is also present in “Pr1”

4.4 SETPOINT VISUALIZATION AND CHANGE

Press and release the **SET** key: Setpoint temperature will be immediately visualized.
Press and hold the **SET** button for more than 3 seconds to change setpoint value: the ❄ led starts to flash. Modify the value using ▼ and ▲ keys. Memorize the new set value pressing again **SET** button. The value will flash. Wait at least 15 seconds to exit from setpoint programming mode.

4.5 MANUAL DEFROSTING CYCLE

Press and Hold Defrosting Button for more than 3 seconds (only cooled modules)

4.6 STAND-BY FUNCTION

Pressing **ON/OFF** key, “**OFF**” will be displayed.
When **OFF** is displayed the machine enters the “Stand-by” mode and all loads and regulation are disabled. Press again **ON/OFF** button to exit the Stand-by mode.

Note: During Stand-by mode the light switch is active.

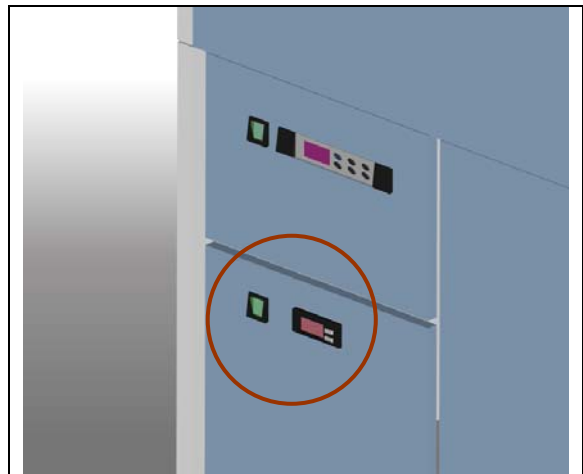
4.7 LOCAL ALARMS

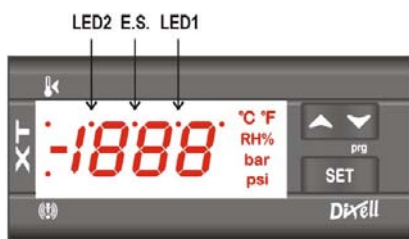
Display	Cause	State of Outputs
P1	Thermostat probe failure	Output according to “ Con “ and “ COF “ parameters
P2	Evaporator probe failure	Unchanged
HA	High temperature alarm	Unchanged
LA	Low temperature alarm	Unchanged
EE	Memory anomaly	
EAL	Digital input alarm	Unchanged
BAL	Blockage alarm from digital input	Regulation outputs deactivated
rtc	Clock alarm	Unchanged

4.8 HUMIDITY CONTROL FOR PRALINE (CHOCOLATE)

Praline Module has an additional control board for humidity control located on the back panel, under the main control for cooling system (Fig.10)

Praline control has an additional independent switch. Red 3-digit display shows relative humidity measured by additional probe inside the cabinet.





Compact Control XT110C

- SET** To display and modify target set point. In programming mode it selects a parameter or confirm an operation.
- SET** To switch the instrument ON/OFF: if the function is enabled (par. onF=Yes), by pressing the SET key for more than 4 sec the controller is switched OFF. To switch the instrument ON again press the SET key.
- ▲** In programming mode it browses the parameter codes or increases the displayed value.
- ▼** In programming mode it browses the parameter codes or decreases the displayed value.

Keys Combination for XT110C

- ▲ + ▼** To lock or unlock the keyboard
- SET + ▼** To enter the programming mode
- SET + ▲** To exit the programming mode

4.9 MEANING OF LEDs ON PRALINE CONTROL

There are a series of luminous points on the display, the meaning of which you will find in the table below:

LED	MODE	FUNCTION
	ON	Output relay enabled
LED 1	FLASHING	Programming phase (flashing with LED 2)
LED 2	FLASHING	Programming phase (flashing with LED 1)
E.S.	ON	Energy saving activated by digital input
	ON	ALARM signal In programming “Pr2” indicates the parameter is also present in “Pr1”

4.10 HUMIDITY SETPOINT VISUALIZATION AND CHANGE



- Push and release the SET key to see the set point value: The value of the set point will be displayed.
- Hold pushed the SET key for 3 sec to change the set point value: the LED 1 & 2 start blinking;
- To change the set value push the ▼ or ▲ arrows within 10 sec.
- To memorise the new set point value push the SET key again or wait 10 sec.

4.11 LOCAL ALARMS FOR PRALINE CONTROL

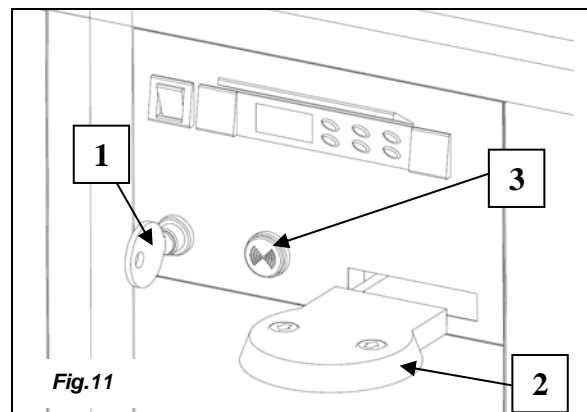
Display	Cause	Outputs
PFO	Probe broken or absence	Alarm output ON; Output according to parameter “So1”
PFc	Probe short circuited	Alarm output ON; Output according to parameter “So1”
HA	Maximum alarm	Alarm output ON; Other outputs unchanged
LA	Minimum alarm	Alarm output ON; Other outputs unchanged
EAL	External alarm	Output unchanged
BAL	Serious external alarm	Output OFF

4.12 OPTIONAL ACTIVATION OF SHOWCASE MOTION

In case of Optional Mobile Showcase, the machine is equipped with a removable two-buttons control (2) and a security key switch (1) to activate the showcase motion.

In order to actuate the motion of the cabinet, keep the key turned and push the buttons of the removable control. Upon activation of the key, the security buzzer will be activated (3).

At the end point, the showcase automatically stops.



WARNING:

- Don't push or pull the showcase while it is moving.
- Do not insert or trap anything into the cabinet that could prevent their movement.
- Do not put your hand into the display case.

4.13 STOPPING THE MACHINE

To stop the cooling system operate the switch, which is located behind the rear protection panel. Position the master switch at “0” (fig.9) disconnecting the display cabinet power supply.

5. CLEANING AND MAINTENANCE

**WARNING:**

All maintenance operations must be performed by expert qualified personnel. Before performing any maintenance operation be sure that the cabinet is disconnected from electrical supply.

**WARNING:**

Wait until hot parts have cooled down and reached ambient temperature to avoid burning risk.

**WARNING:**

Wear suitable gloves during maintenance and cleaning operations to avoid contact with metallic parts which could cause injuries.

5.1 ORDINARY MAINTENANCE: DAILY CLEANING

Daily cleaning operations can be performed by generic not-trained personnel. Glass and working surfaces should be cleaned every day, at the end of the daily service of the shop.

**WARNING:**

During daily cleaning operations, remove completely the conserved product from the cabinet. In case of possible contacts between the displayed products and not-alimentary chemicals, the product should be removed and wasted: it can't be used or sold.

Glass surfaces:

Clean glass surfaces (back door, front and side glasses, shelves and roof top) using a humid sponge and a specific cleaner for glasses. Remove with care any residual of cleaners or chemicals, drying with a soft cloth.

**WARNING:**

During moving glass cleaning operation, open and close them with great care accompanying them until end of movement. Avoid to lean on movable glasses during cleaning operations.

Plastic / Stainless Steel / Wood / Marble / Chromate surfaces:

Clean with a sponge or humid cloth, using water and/or neutral specific cleaners; wash and dry with care using a soft cloth.

5.2 ORDINARY MAINTENANCE : WEEKLY CLEANING

Weekly cleaning operations can be performed by generic not-trained personnel.

Cabinet must be completely cleaned at least once a week, in order to eliminate dirt and to defrost it completely. If the environment is hot and humid a more frequent cleaning is advised.

Remove bottom panels for performing weekly cleaning, in order to get access to the bottom of the basin.

Do the following:

1. Remove containers or trays with conserved product from the cabinet.
2. Turn off the cabinet and disconnect it completely from the electrical net.



WARNING:

Before performing any weekly cleaning operation, be sure that the cabinet is turned off and completely disconnected from electrical net.

3. Remove internal movable panels. Clean the with care using neutral cleaners; wash them with water and dry using a soft cloth.



WARNING:

Removing bottom panels you will get free access to the evaporators surfaces which are sharp and could injury the staff: wear always suitable gloves when performing weekly cleaning.

4. Use a humid sponge to remove any residual of conserved product and dirt from the basin. Avoid using too much water that could damage electric components.



WARNING:

Don't tamper or damage electrical connections and wires or the refrigerating system piping, inside and below the basin.

5. Clean the basin with a dry cloth and let it dry completely.
6. Put all the bottom panels back in place as they where positioned before.
7. Turn on the cabinet again.



WARNING:

Use of abrasive, corrosive products, solvents , acids that could cause irreparable damages on surface and start corrosion must be avoided.

Don't pour flammable products on hot parts such as lamps, LEDs, ballasts and so on.

Don't pour water on electric components such as fan motors, lights and so on.



WARNING:

In case of Electric water-evaporating pans optional don't use too much water during cleaning operations in order to avoid water spillage on floor.



WARNING:

During cleaning operations of movable glasses, be careful in opening and closing the glass, accompanying it until its final position. Avoid to lean on the open glass during cleaning phases.

5.3 PROGRAMMED MAINTENANCE – CONDENSER CLEANING

Condenser cleaning must be performed by an expert and qualified operator, for it is considered a programmed maintenance operation.

The deposit of dust and dirt in general on the condenser fins (air) reduces the efficiency of the plant until functioning is prevented and causing damage to the compressor. It is therefore absolutely necessary to periodically clean the condenser (every 20-30 days) as indicated below:

1. Turn off the cabinet and disconnect it from the electrical net.
2. Remove the back protection grid.
3. Remove dust and dirt present on the condenser fins using a brush or a vacuum cleaner (fig.10)

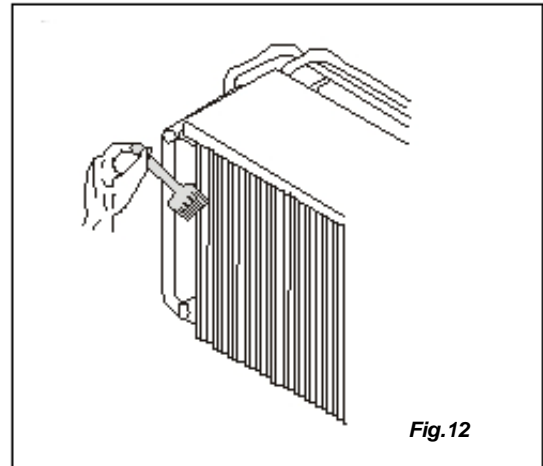


Fig.12



WARNING:

During condenser cleaning operations don't use rigid or metallic objects that could damage it.

5.4 MAINTENANCE SUMMARY

Ordinary Maintenance				
	Generic Operator	Qualified Operator	Frequency	Tools
External glass surfaces	X		Daily	Suitable cleaner,, Humid sponge
Internal Glass surfaces	X		Daily	Suitable cleaner,, Humid sponge
Other External surfaces	X		Daily	Suitable cleaner,, Humid sponge
Inner basin surfaces	X		Weekly	Humid Sponge
Programmed Maintenance				
	Generic Operator	Qualified Operator	Frequency	Tools
Condenser Cleaning		X	Monthly	Brush / Vacuum Cleaner

6. PRACTICAL TROUBLESHOOTING GUIDE

1) Temperature of the display area not low enough

<i>Probable Cause</i>	<i>Probable Solution</i>
Evaporator closed by ice	Perform a complete defrost as follow: Remove the conserved product and put inside another refrigerated cabinet. Turn off main switch for 10/12 hours in order to permit the complete melting of frost inside the cabinet.
Condenser blocked by dust or other.	Clean the condenser. Remove everything that obstructs regular air flow to the condenser.
The ventilators are not working and / or their blades are damaged.	Request the intervention of the assistance service for the replacement of the same.
The display cabinet is exposed to air currents or direct sunlight	The display cabinet does not function in these conditions; remove the display cabinet from the air currents and/or direct sunlight
The thermostat is not working properly. With a perfectly functional refrigerating plant, the thermostat maintains a higher temperature in the air than that set.	Call the technical assistance service.
The refrigerated airflow (the “sheet of air”) on the ice-cream is irregular.	Check the air circuit (ventilator area, area beneath the evaporator) and remove any obstacles to the circulation of cold air.
Lack of water	Check if there is a water flow, if there is, call the technician for possible water valve rupture, pressurestat problems or other causes.

2) The defrosting water does not drain off properly (that is, the water obtained from the melting of ice during the automatic or manual defrosting phases).

<i>Probable Cause</i>	<i>Probable Solution</i>
The defrosting water drainage tube that goes from the cold tub to the tub in which such water is channelled (for evaporation) is blocked.	Open up the drainage tube
The display cabinet is positioned on the ground in such a way that the drainage water is not directed towards the outlet hole.	Ensure that the display cabinet is level on the ground. It must be completely level.

3) The compressor never stops or it works for very long periods of time.

<i>Probable Cause</i>	<i>Probable Solution</i>
The room temperature is very high (e.g. above +32°C).	If it is not possible to lower the room temperature (e.g. by means of air conditioning) the compressor will work almost constantly.
The air condenser is blocked	Clean the condenser
The thermostat is set too low.	Regulate the thermostat to a higher temperature
The ventilators are off.	Call the assistance service to individualise the cause and replace them if necessary.

4) The display cabinet does not work

<i>Probable Cause</i>	<i>Probable Solution</i>
The cabinet is not plugged in.	Plug it in
The trip switch has gone off.	Reinsert the trip switch.
The general switch of the display cabinet is off.	Turn on the general switch of the display cabinet

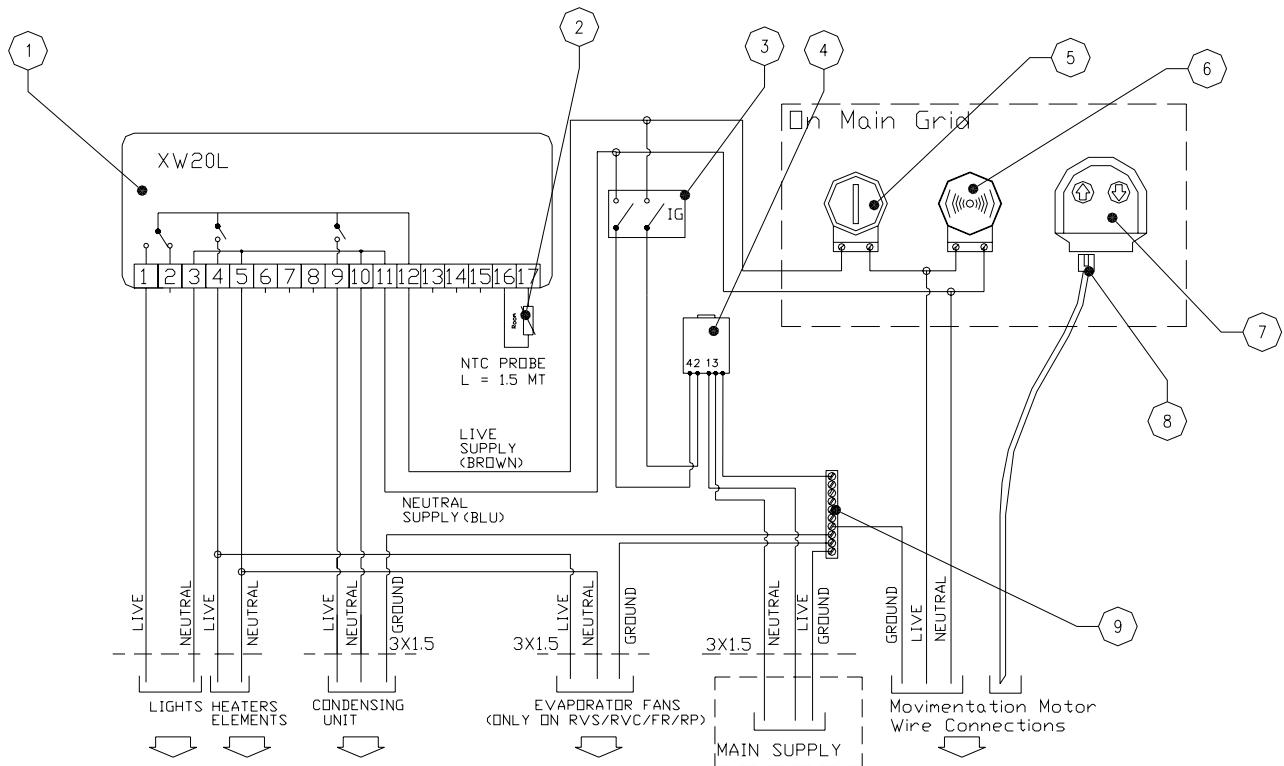
5) Light is not working

<i>Probable Cause</i>	<i>Probable Solution</i>
The light switch is not turned on.	Turn on the light switch
LED Damaged	Call assistance service

7. ELECTRICAL DIAGRAMS

7.1 ELECTRICAL DIAGRAM BIANCA COOLED RVS, CS*

Std Ver. 230-1-50

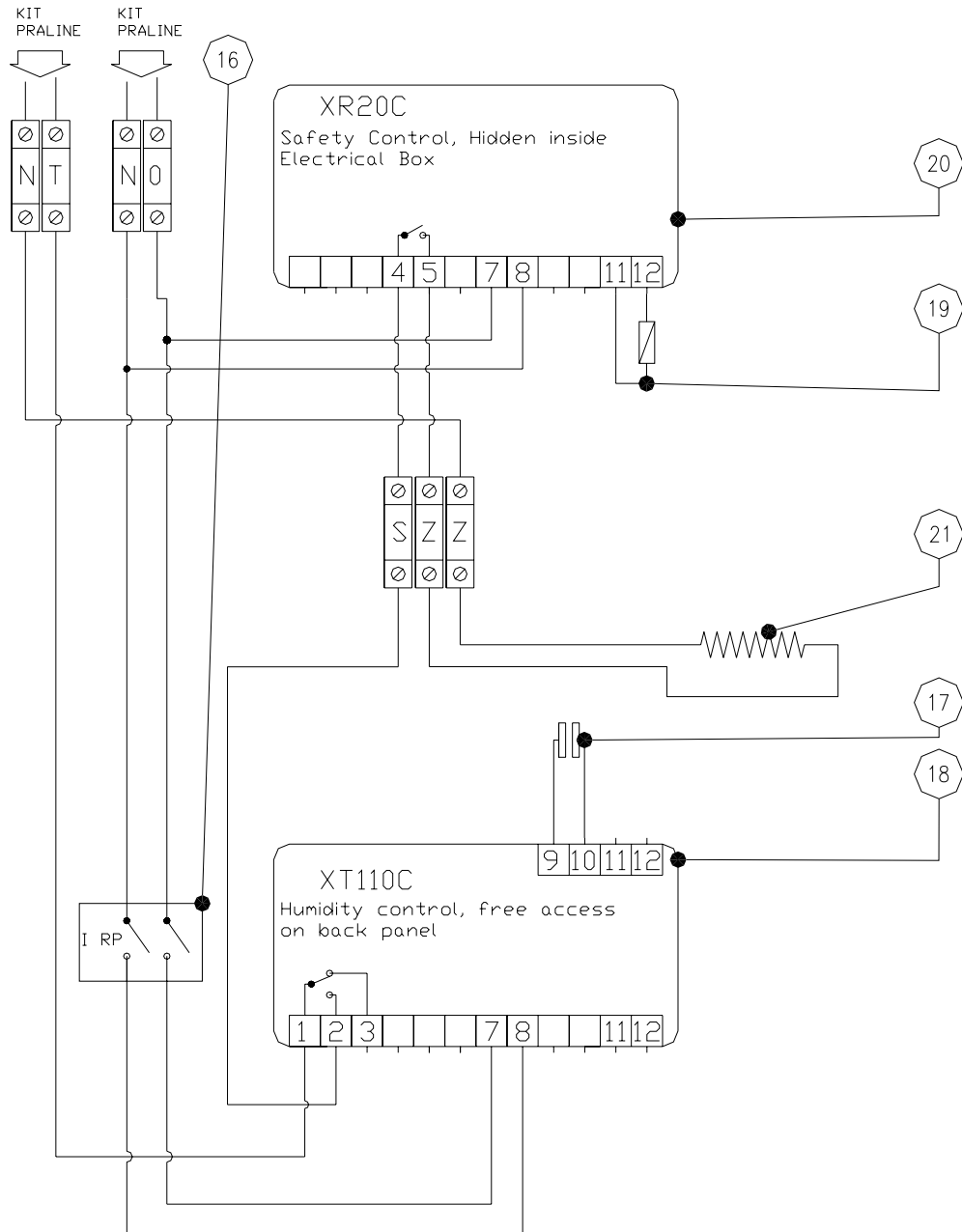


POS.	DESCRIPTION
1	Dixell Control XW20L
2	Temperature Probe NTC
3	Main Green Switch
4	EMC Noise Filter
5	Key Switch
6	Buzzer
7	Movement Control
8	Motor Control Cable w/Plug
9	Ground Terminal Clamp

* In case CS model the condensing unit is replaced by heating elements and there are no fans inside the basin.

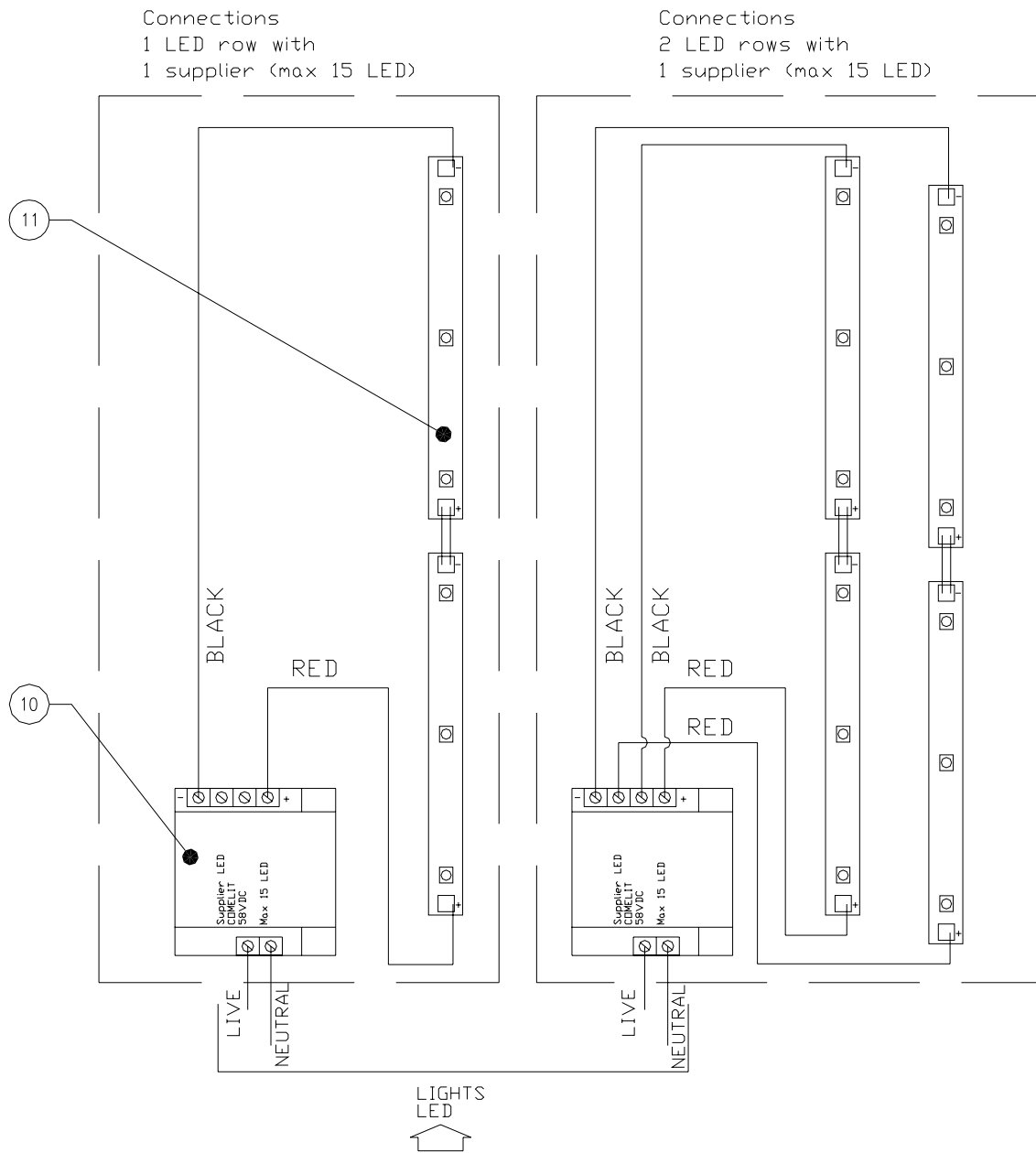
7.2 ELECTRICAL DIAGRAM BIANCA COOLED PRALINE (CHOCOLATE) RP

Std Ver. 230-1-50



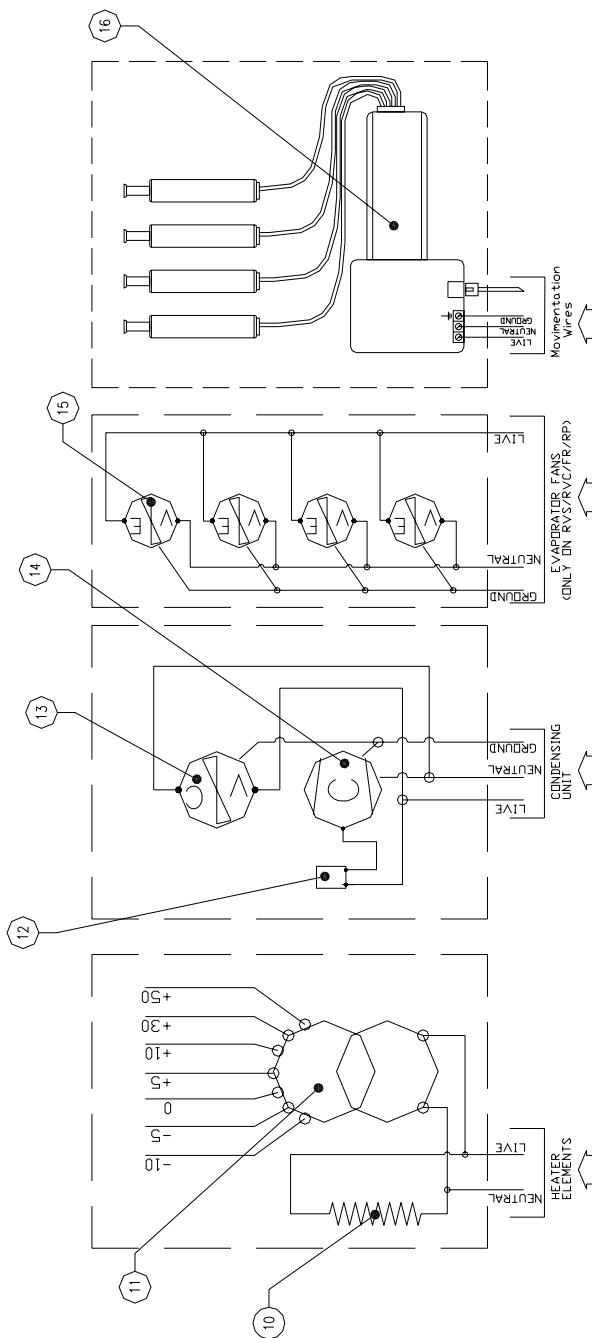
POS.	Description
16	Red Praline Switch
17	EWHS280 Humidity Probe
18	Dixell Control XT110C for Relative Humidity
19	NTC Temperature probe
20	Safety Dixell Control XR20C
21	Electrical Heater for Dehumidification

7.3 LIGHTS CONNECTIONS



POS.	Descriptions
10	LED Supplier
11	3-LED 6000 k Bar

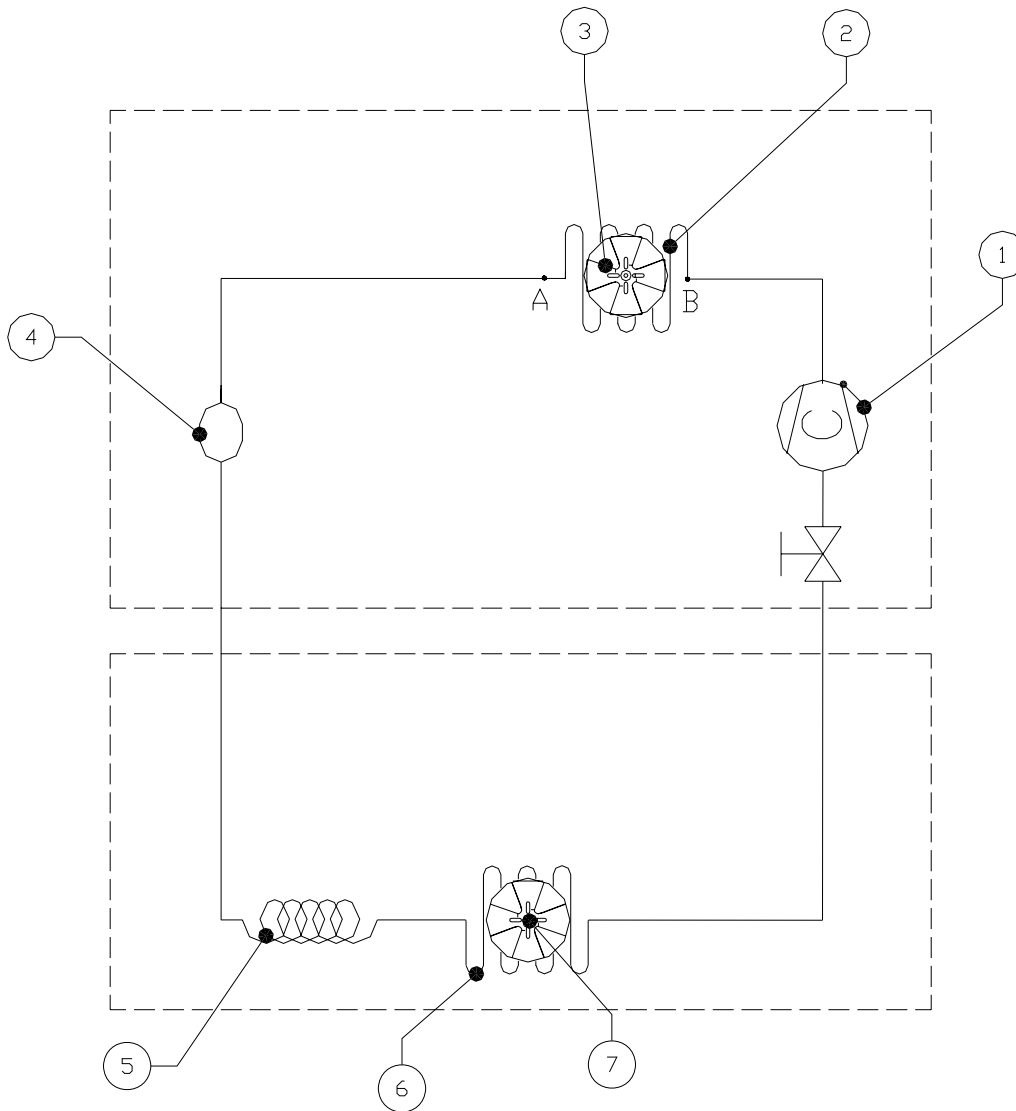
7.4 LOADS CONNECTIONS RVS



POS.	Description
10	Heating wire
11	Glass Supply Transformer
12	Compressor Protection (Klixon)
13	Condenser Fan
14	Compressor
15	Evaporator Fan(s)
16	Movement Motor w/Pistons

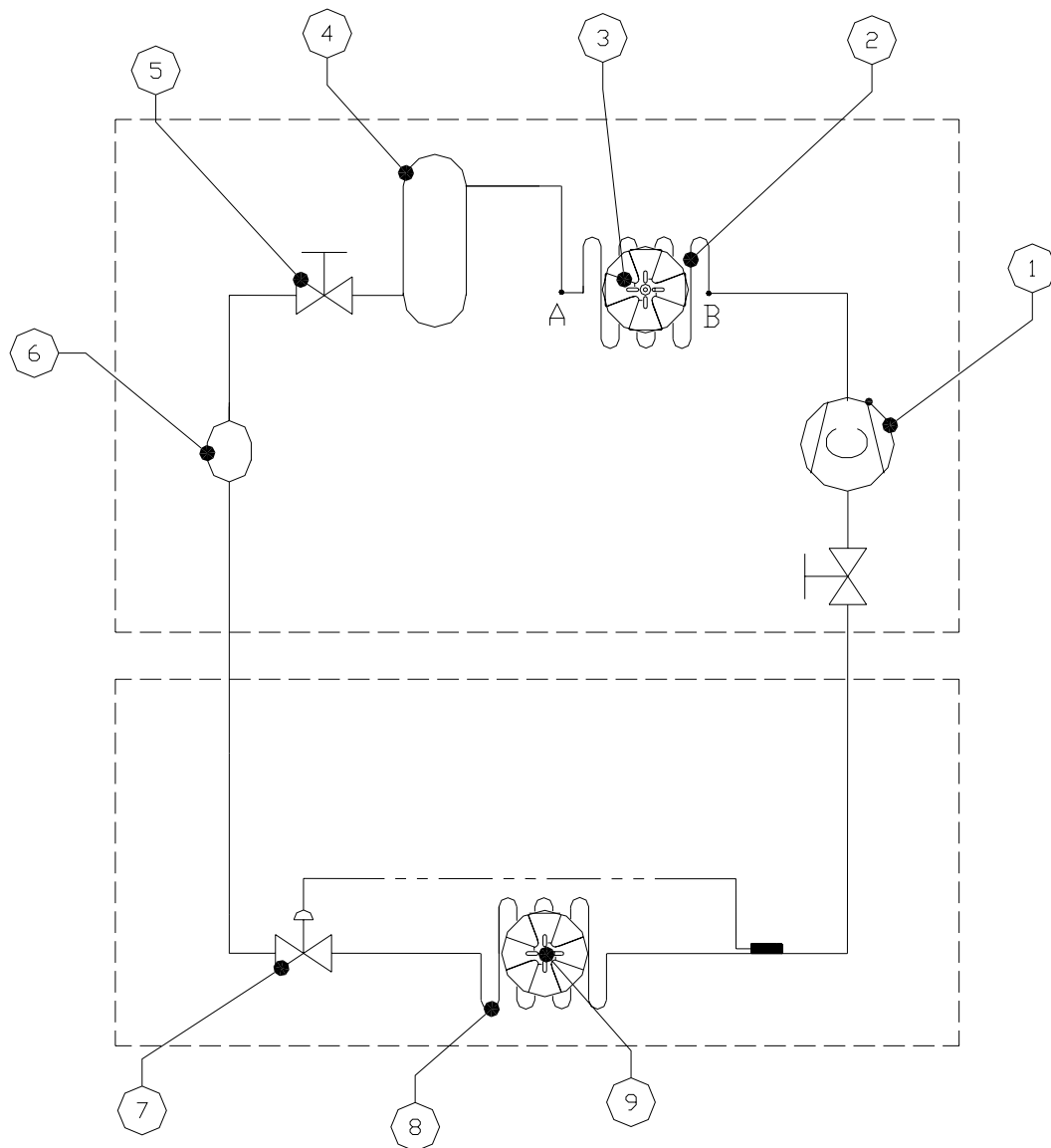
8. COOLING DIAGRAMS

8.1 CAPILLARY SYSTEM FOR BIANCA RVS, RP



POS.	Description
1	Compressor
2	Condenser
3	Condenser Fan
4	Filter
5	Capillary
6	Evaporator
7	Evaporator Fans

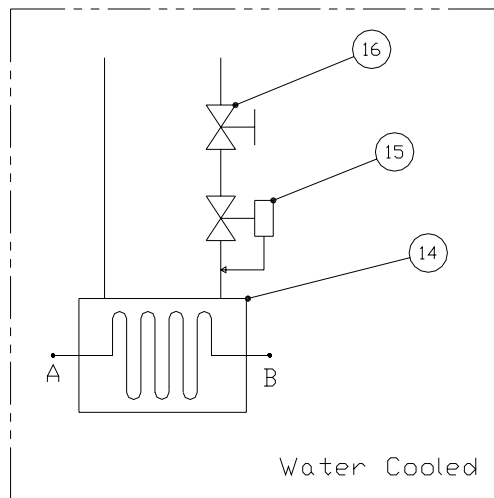
8.2 VALVE SYSTEM FOR BIANCA RVS, RP (ONLY FOR REMOTE UNIT)



POS.	Description
1	Compressor
2	Condenser
3	Condenser Fan
4	Liquid Receiver
5	Manual Tap
6	Filter
7	Thermostatic Valve
8	Evaporator
9	Evaporator Fan

8.3 OPTIONAL: WATER-COOLED CONDENSATION

All Version (Cooled Cabinets)



POS.	Description
14	Water-cooled condenser
15	Pressure-Regulating Water Valve
16	Water Inlet Valve



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