COLD BANQUET TROLLEYS (ELECTRICAL –INDUSTRIAL TYPE)

USER MANUAL

CE

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CAUTION

This device should only be used in facilities where relevant standards, laws and safety reqirements are complied with

INTRODUCTION

Dear User,

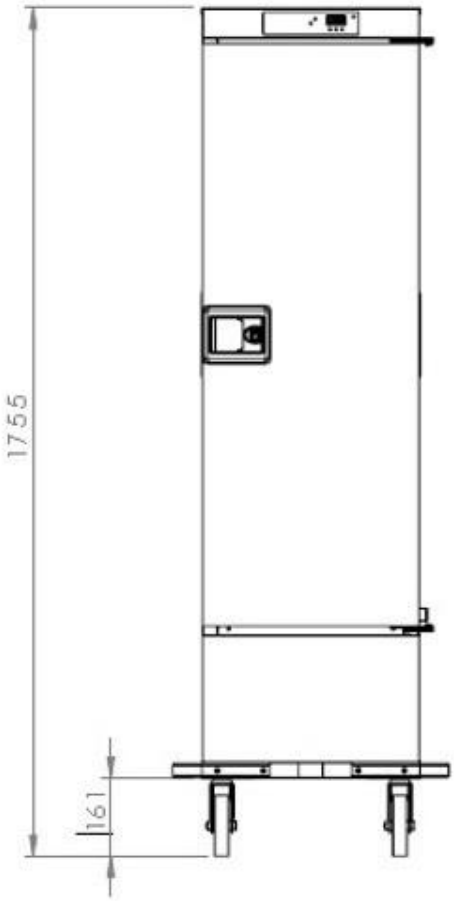
Thank you for purchasing our device and for your reliance upon our company. Our devices have been used within our customers kitchen, your kitchen in 100 countries.Our devices are produced in compliance with international standards. Important notice: Please read or ensure that the users read this user's manual in order to achieve the desired performance in line with your expectations and to use your device for long years. Please take the warnings mentioned above into consideration before calling for service....

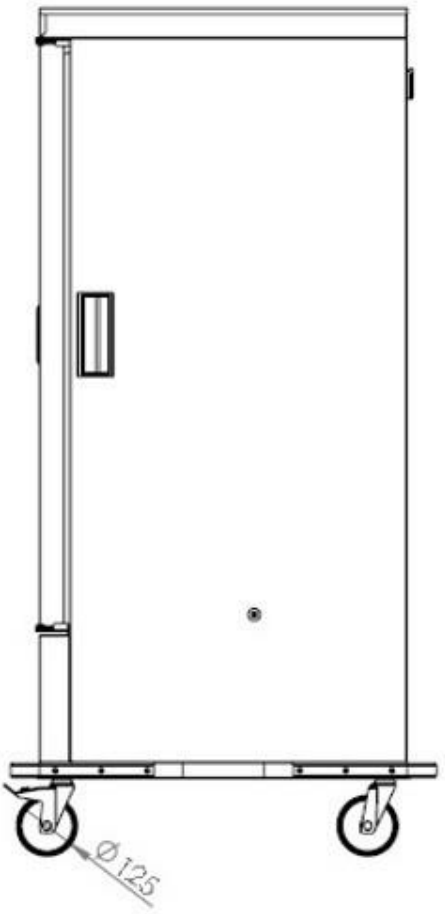
- **Please read and ensure that your operation personnel also reads this user's manual carefully before installing and using the device. If the device is operated without reading the user's manual, the device will not be covered by the guarantee.**
- **The manual containing information about installation, usage and maintenance of our product you purchased should be read carefully. Please ensure that power supply connections to the device are already installed by qualified personnel according to local legislation, before our authorized service personnel arrives for the installation of the device.**
- **If you are confused or you don't have enough information please get in touch with authorized service by phone.**
- **Please keep in mind that, if the service personnel is delayed at your site, related expenses and delay costs will be charged to you on hourly basis.**
- **We hope that you will get the best performance from our product...**

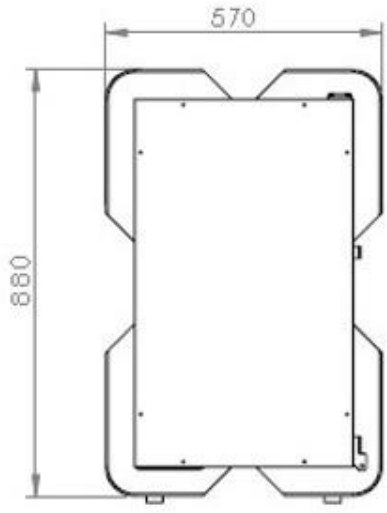
TECHNICAL DATA

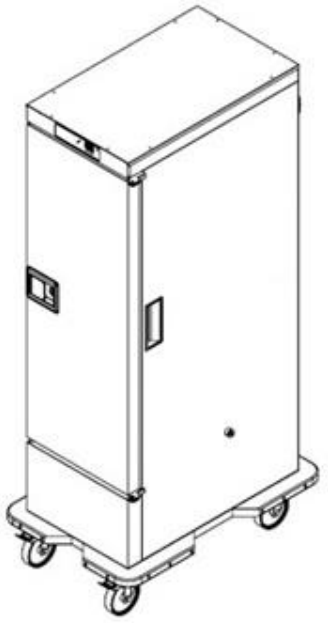
YOUR DEVICE'S TYPE	KBW 21	KBW 11
CAPACITY (L)	15 x GN 2/1 containers	15 x GN 1/1 containers
MAIN DIMENSIONS (mm)	775 x 1000 x 1755	570 x 880 x 1755
TEMPERATURE REFRIGERATION (°C)	0 / +10°C	0 / +10°C
GAS REFRIGERANT	R290	R290
TOTAL ELECTRIC POWER	210 Watt	210 Watt
ELECTRIC POWER SUPPLY	220 – 240 V AC NPE~ / 50 Hz	220 – 240 V AC NPE~ / 50 Hz
PROTECTION CLASS	IP X2	IP X2

KBW-11

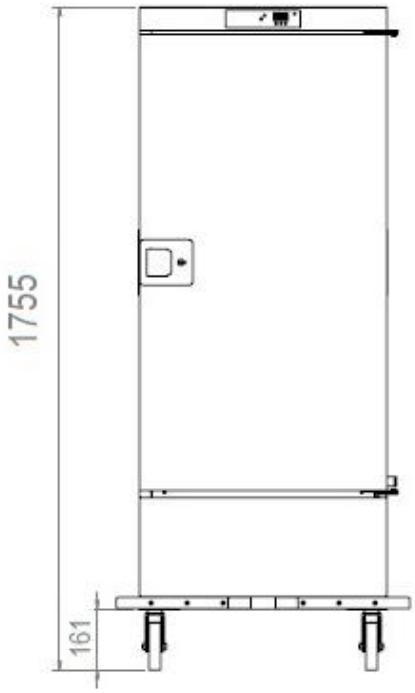


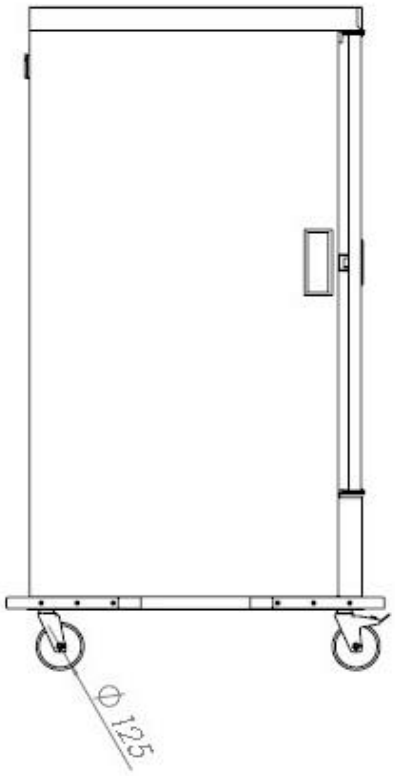


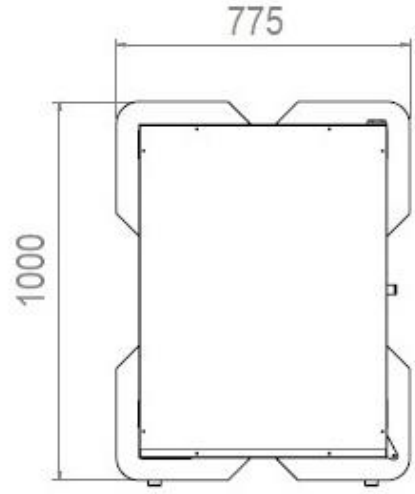




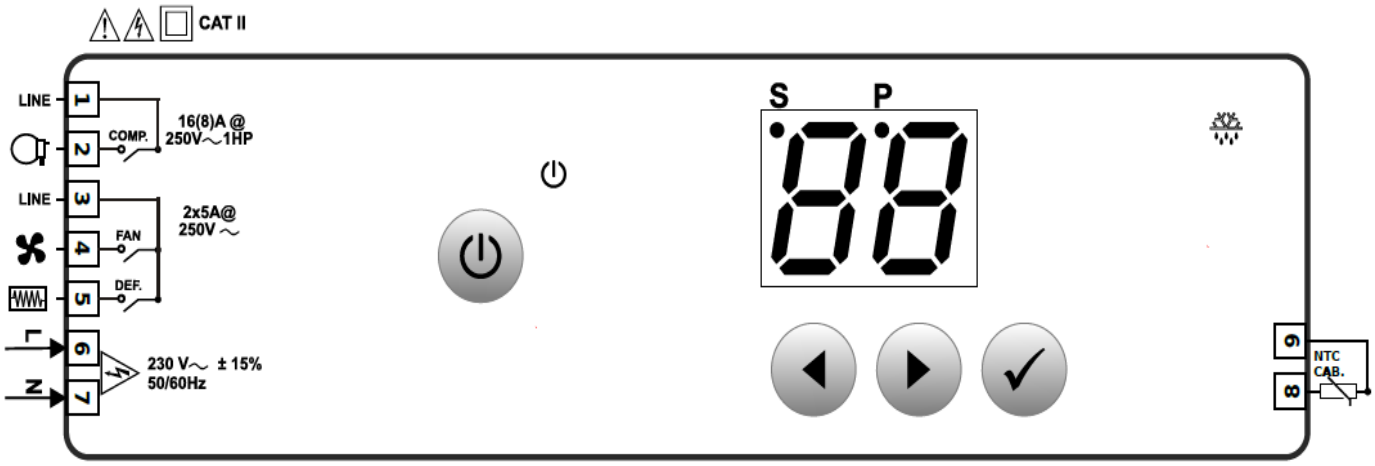
KBW-21







Electrical Wiring Diagram



1 – Phase

2 – Compressor

3 – Phase

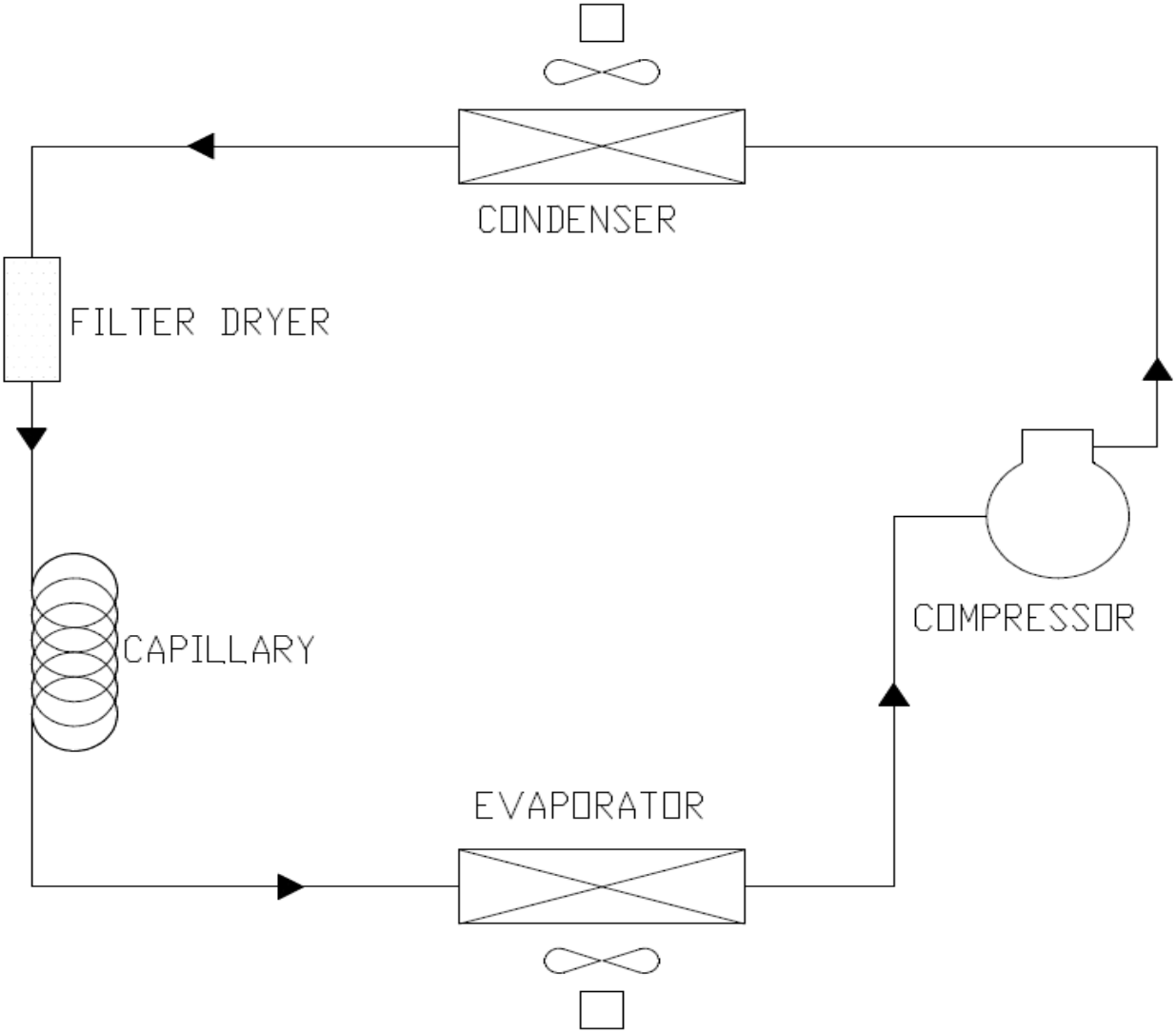
4 – Evaparator Fan

5 – Defrost Resistance (not using)

6/7 – Electric Supply (230 V AC / 50-60 Hz)

8/9 – NTC Probe

Cooling Diagram



⚠ ATTENTION

! Make sure that the power supply voltage is the same indicated on the instrument

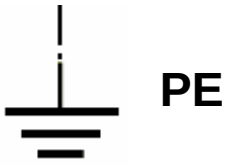
! Switch on the power supply only after that all the electrical connections have been completed Supply voltage range must be determined in order. While installing the unit, supply voltage range must be controlled and appropriate supply voltage must be applied to the unit.

! There is no power supply switch on the device. So a power supply switch must be added to the supply voltage input.

! Power switch must be two poled for seperating phase (L) and neutral (N). On / Off condition of power supply switch is very important in electrical connection.

WARNING SIGNS

POWER NETWORK GROUNDING



EARTHING

POWER

OVERHEAT

ELECTRIC CONNECTION VALUES

VOLTAGE : 220 V - 240 V

GRID CONNECTION: MONOPHASE

GROUNDED FREQUENCY: 50 Hz

SAFETY DETAILS

☞ Any kind of flammable solid and liquid material (cloths, alcohol and derivatives, petrochemical products, wooden and plastic materials, cutting blocks, curtains etc.) should never be held near the device.

☞ Never leave the device under direct sunlight. It should be located at least 40 cm away from heat sources like ovens, radiators and heaters.

☞ Banquette cabinets can use simultaneously together with other products of us.

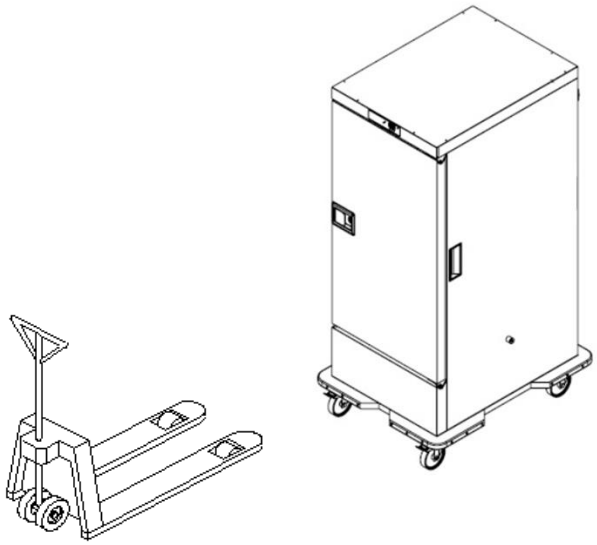
☞ This device should be installed in line with effective regulations and only be operated in well ventilated places. Please refer to the instructions before installing and operating the device.

☞ This device is designed for industrial use and should only be operated by personnel trained on the device.

☞ The device should not be handled by anyone else except for the manufacturer or authorized service.

☞ In case of fire or flame in the area where the device is operated, act without panic, close gas valves (if any), turn off power switches and use a fire extinguisher. Never use water to extinguish the fire.

TRANSPORTING, MOVING AND INSTALLATION



- Cold units are be delivered as a standard in wooden cases, reinforced by EPS block, wrapped with stretch film and air bubble protective packing, and wrapped over again with a second layer of stretch film
- The device may be moved with manpower.
- Do not hit or drop the device when moving.

- Remove stretch film on the device before installing the device.
- After the device is moved to the location where it will be operated, rollers should be set to lock position. In this way sliding of the trolley is prevented.
- Power supply connection of the device should be checked by an eligible electrician, and it should be connected to a fuse at a maximum height of 170 cm.
- Power supply connection should be made using a 30 mA current leakage fuse as a protection against current leakage danger.
- Power installation of the plugs to be used should be grounded by connecting it to a grounding bar at the nearest panel.

⚠ Changing the Location: Machines should be used by an authorised person also supply cables cannot be extended or replaced except by an authorised person

If this device located near to any wall, separation, kitchen furniture, decorative coating etc. the distance in between should be 20cm. and if those are coated with fireproof heat insulating material, the distance should be 5 cm. It is strongly recommended that fire safety protection instructions are observed.

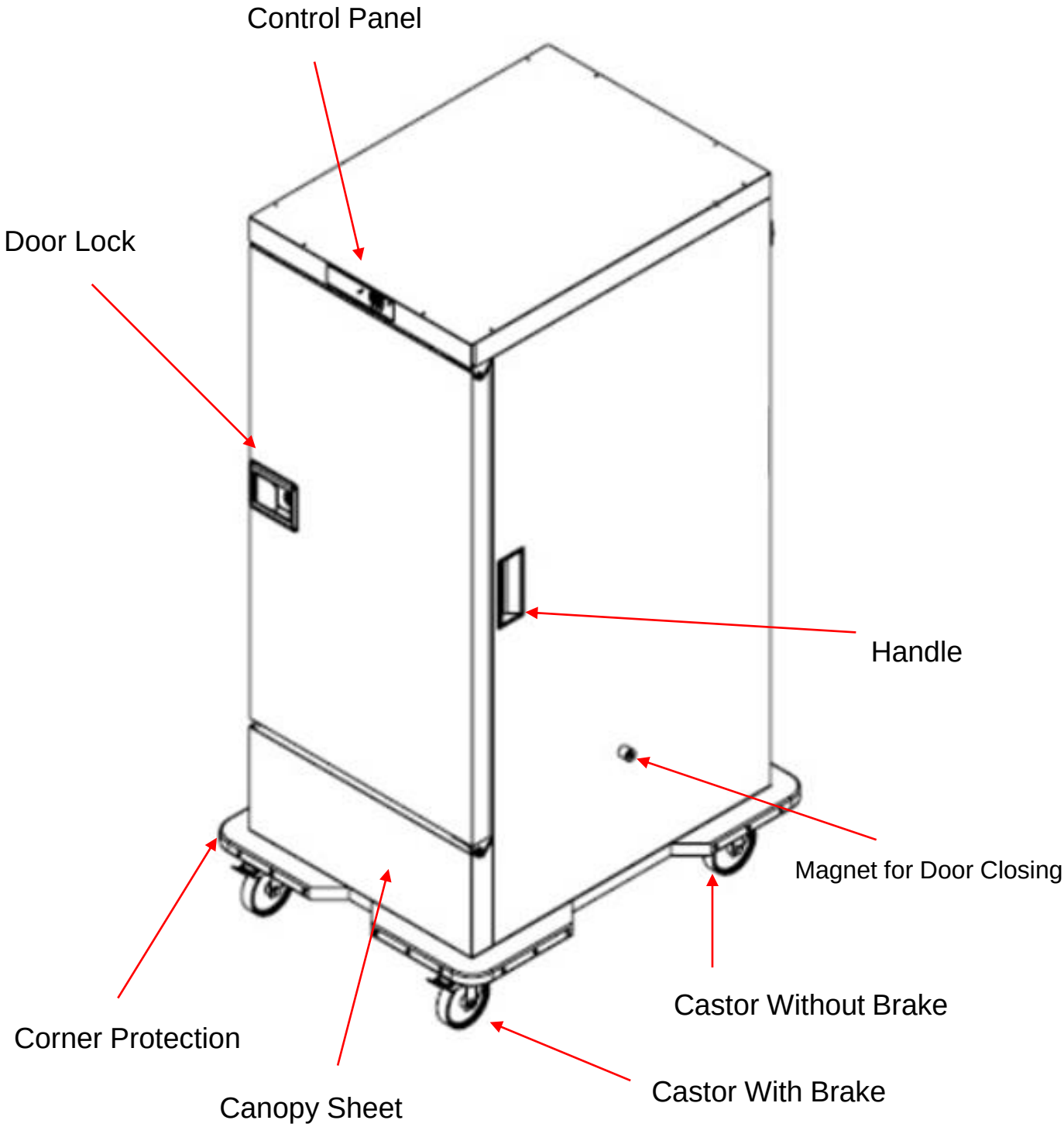
CAUTION! The device should move just on smooth surfaces!

CAUTION! : The device should be installed and operated as described in this user's manual. If any failure is encountered please contact our nearest authorized service dealer.

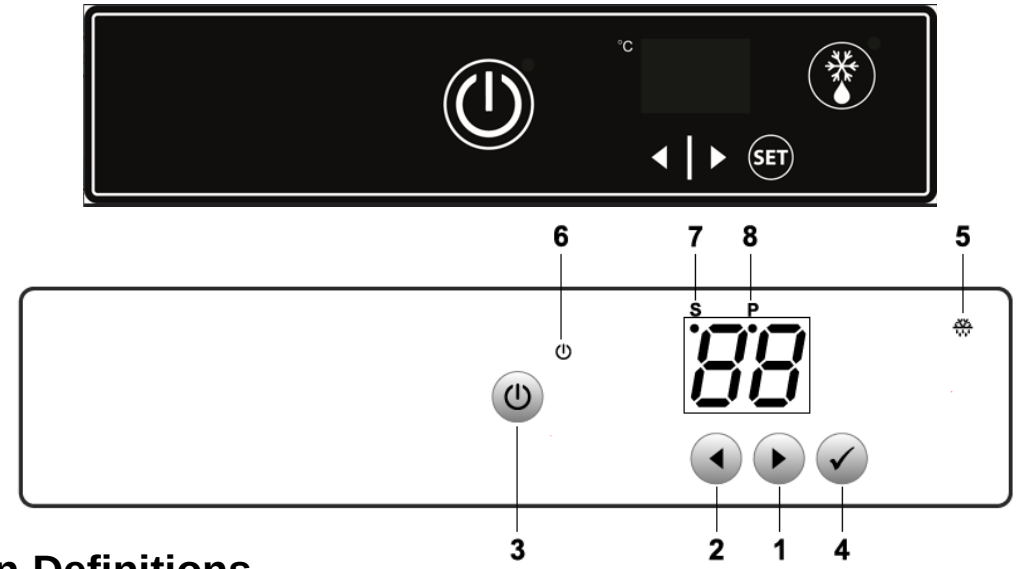
WHEN THE DEVICE HAS A FAILURE ONLY AUTHORIZED ..... SERVICE DEALERS ARE ALLOWED TO HANDLE THE DEVICE. IF ANY PERSON OTHER THAN ONLY AUTHORIZED SERVICE DEALERS HANDLE THE DEVICE, **IT WILL NOT BE COVERED BY THE GUARANTEE.**

NEVER ALLOW PEOPLE WHO ARE NOT AUTHORIZED TO HANDLE THE DEVICE. OTHERWISE PRODUCER COMPANY WILL NOT BE RESPONSIBLE FOR THE CONSEQUENCES. DURING MAINTENANCE SERVICE OUR AUTHORIZED SERVICE DEALERS SHOULD NOT BE PROPOSED TO USE NON-ORIGINAL SPARE PARTS FOR WHATSOEVER. INSTALLING ANY NON-ORIGINAL SPARE PART TO THE DEVICE LEAVES THE DEVICE **OUT OF GUARANTEE COVERAGE**.

INTRODUCTION OF THE APPLIANCES



CONTROL PANEL



Button Definitions

1 – Increment Button:

- In main operation screen, press this button to display evaporatör sensor temperature.
- It is used to increase the value in the Set screen, Defrost screen and Programming mode

2 – Decrement Button:

- It is used to decrease the value in the Set screen, Defrost screen and Programming mode

3 – ON / OF Button:

- It is used to turn on & off the device.

4 – Set Button:

- In main operation screen; if this button pressed, set value will be displayed. Value can be changed using button 1 & 2. When Set button pressed again, value is saved and return back to main operating screen.
- To Access the programming screen, the main operation screen, press this button for 5 seconds.
- It is used to saving value in the Set screen, Defrost screen and Programming mode

Led Definitions

5 – Defrost output led (Not using)

6 – ON / OFF Led

- This led indicates that device status (Open or Close)

7 – SET Led

- This led indicates that device is in Set value changing mode.

8 – Program Led:

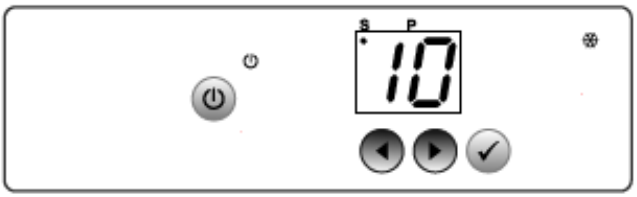
- Blink once in a second in programming mode.

OPERATION OF THE DEVICE & CONTROL PARAMETERS

Main Operating Screen

When SET button pressed "S" led will be active and temperature set value will be displayed.

SET Value Screen



Temperature set value can be changed with increment and decrement buttons.

SET Value Screen

When SET button pressed temperature set value can be saved.

Main Operating Screen

"S" will be inactive and goes back to main operation screen.

Temperature set value parameter

Temperature set value, can be programmed between minimum temperature set value SL and SH maximum temperature set value .

Pn **Compressor Active Time in Case of Cabinet Probe Defect Parameter**

If cabinet probe defect parameter Pd is 2,then this parameter is observed.
It canbe adjusted from Cn to 99 minutes.

PF **Compressor İnactive Time in Case of Cabinet Probe Defect Parameter**

If cabinet probe defect parameter Pd is 2, then this parameter is observed.
It canbe adjusted from Co to 99 minutes.

AS **Temperature Alarm Function Selection Parameter**

0 Temperature alarm function is inactive.

1 Absolute alarm is selected. If temperature lower than AL and higher than AH , then alarm is on.

2 Relative alarm is selected. Alarm operates according to the set value. If cabinet temperature value is below (Set- AL) or above (Set + AH), alarm ocurs.

AL **Temperature Alarm Minimum Parameter**

For AS = 1, this parameter value can be adjusted from minimum value of device scale to temperature alarm maximum parameter HH value. For AS = 2, this parameter value can be adjusted 0 to %50 of the device scale.

AH **Temperature Alarm Maximum Parameter**

For AS = 1, this parameter value can be adjusted from temperature alarm minimum parameter AL value to maximum value of device scale.For AS = 2, this parameter value is can be adjusted 0 to %50 of the device scale.

Ad **Temperature Alarm On Delay Time Parameter**

Temperature Alarm On Delay Time can be defined with this parameter. It can be adjusted from 0 to 99 minutes.

AP **Temperature Alarm Delay After Power On Parameter**

When power is first applied to the device, this time delay must be expired for activation of temperature alarm. It can be adjusted from 0 to 99 minutes.

FY **Fan Operation Selection Parameter**

0 Fan is OFF.

1 Fan is ON.

2 Fan operates according to the evaporator sensor temperature value.

3 Fan operates according to the (cabinet - evaporator) temperature value.

Ft **Fan Stopping Temperature Parameter**

Fan stopping temperature can be defined with this parameter. It can be adjusted from minimum value to maximum value of device scale.

FH **Hsyteresis Parameter for Fan Output**

From 1 to 20°C for NTC (-50°C, 100°C) , from 1 to 36°F for NTC (-58°F, 212°F), from 0.1 to 10.0°C for NTC (-50.0°C,100.0°C), from 0.1 to 18.0°F for NTC (-58.0°F,212.0°F)

FC **Fan Activity Selection According to the Compressor and Defrost**

0 Fan operates according to the FY parameter.

1 Fan operates according to the FY parameter, but fan is stopped if commpressor is stops.

2 Fan operates according to the FY parameter, but fan is stopped during defrost and dripping time.

3 Fan operates according to the FY parameter.If compressor stops, during defrost and dripping operations fan stops.

4 Fan operates according to the commpressor & Fan is ON during defrost and dripping operations

Fd **Fan Delay Time After Completion of Dripping Time Parameter**

Fan Delay Time After Completion of Dripping Time is defined with this parameter. It can be adjusted from 0 to 15 minutes.

dC **Digital Input Contact Selection Parameter**

0 Digital input is inactive.

1 NO "normally open" digital input is active when the contact is closed.

2 NC "normally close" digital input is active when the contact is opened.

dn **Digital Input Function Selection Parameter**

If digital input contact selection parameter value dC = 0 this parameter is not observed.

0 When the digital input is active, fan is stopped. A1 screen will be displayed.

1 When the digital input is active, compressor is stopped. A1 screen will be displayed and defrost operation will be disabled.

2 When the digital input is active, first fan stops, 10 seconds later compressor stops. Ar will be displayed at main operation screen.

3 When the digital input is active, defrost starts.

4 When the digital input is active, alarm will be active. A1 will be displayed at main operation screen

dE **Digital Input Effect Time Parameter**

If digital input contact selection parameter value dC = 0, this parameter is not observed. For digital input function selection parameter dn = 0 or 2, maximum effect time of digital input is determined with this parameter. It can be adjust from 0 to 120 minutes. When this parameter is 0, if decrement button is pressed, -- is observed. In this condition the effect will be ended when digital input is deactive.

Pr **Button Protection Parameter**

0 There is no protection.

1 Defrost time set value can not be changed and manual defrost is not available.

2 Temperature set value can not be changed.

3 Defrost time set value and temperature set value can not be changed and manual defrost is not available.

4 Defrost time can not be changed, Defrost ON/OFF operation is available.

PA **Programming Mode Accessing Password**

It is used for accessing to programming mode. It can be adjusted from 0 to 999. If it is 0, password is not entered for accessing to the parameters. If password is '12' only HS , d1 , dr can be accesible.

Temperature Unit Selection Parameter

CF

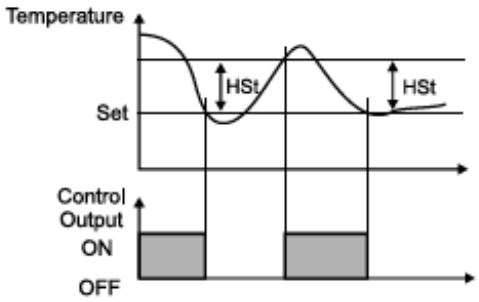
0	°C selected.
1	°F selected.

HS

Hysteresis Parameter for Compressor Output

from 1 to 20°C for NTC (-50°C, 100°C) or PTC (-50°C, 150°C)
from 1 to 36°F for NTC (-58°F, 212°F) or PTC (-58°F, 302°F)
from 0.1to 10.0°C for NTC (-50.0°C,100.0°C) or PTC (-50.0°C,150.0°C)
from 0.1 to 18.0°F for NTC (-58.0°F,212.0°F) or PTC(-58.0°F,302.0°F)

In ON/OFF control algorithm, temperature value is tried to keep equal to set value by opening or closing the last control element. ON/OFF controlled system, temperature value oscillates continuously. Temperature value's oscillation period or amplitude around set value changes according to controlled system. For reducing oscillation period of temperature value, a threshold zone is formed below or around set value and this zone is named hysteresis.



SL

Minimum Temperature Set Value Parameter

Temperature set value can not be lower than this value. This parameter value can be adjusted from minimum value of device scale to maximum temperature set value parameter SH

SH

Maximum Temperature Set Value Parameter

Temperature set value can not be greater than this value.
This parameter value can be adjusted from minimum temperature set value parameter SL to maximum value of the device scale.

o1

Cabinet Sensor Offset Parameter

From -20 to 20 °C for NTC(-50°C, 100°C) or PTC(-50°C, 150°C),
From -36 to 36 °F for NTC(-58°F, 212°F) or PTC(-58°F, 302°F),
From -10,0 to 10,0°C for NTC(-50,0°C,100,0°C) or PTC(-50,0°C,150,0°C),
From -18.0 to 18.0°F for NTC(-58.0°F,212.0°F) or PTC(-58.0°F,302.0°F).

S2

Evaporator Sensor Selection Parameter

0	Evaporator sensor is inactive.
1	Evaporator sensor is active.

o2

Evaporator Sensor Offset Parameter

If evaporator sensor selection parameter S2 is 1, then this parameter is observed.
From -20 to 20°C for NTC(-50°C, 100°C) or PTC(-50°C, 150°C) ,
From -36 to 36°F for NTC(-58°F, 212°F) or PTC(-58°F, 302°F),
From -10.0 to 10.0°C for NTC(-50.0°C,100.0°C) or PTC(-50.0°C,150.0°C),
From -18.0 to 18.0 °F for NTC(-58.0°F,212.0°F) or PTC(-58.0°F,302.0°F).

dY

Defrost Type Selection Parameter

0	Electric defrost.
1	Hot gas defrost.

dı **Defrost Time Parameter**

It can be adjusted from 0 to 999 minutes.
If it is selected 0 automatic or manual defrost is not performed.

dr **Defrost Repeat Cycle Parameter**

It can be adjusted from 1 to 99 hours.

dS **Defrost Stopping Temperature Parameter**

For evaporator sensor selection parameter [SP] is 1 (evaporator sensor is active), while defrost operation, if evaporator temperature reaches to temperature that defined at this parameter in a shorter time than [dı] parameter, then defrost operation stops.

PE **Defrost at Power On Selection and Defrost Delay Parameter**

It can be adjust from 0 to 99 minutes. When tihs parameter is 0, if decrement button is pressed, [no] is observed. In this condition system goes through a defrost cycle at the end of the defrost repeat cycle time [dr] after power on. If this parameter value is between 0 and 99, then system goes through a defrost cycle at the end of the this parameter time after power on.

dA **Display Status During Defrost Parameter**

- 0 The cabinet temperature value is displayed during defrost.
- 1 Cabinet temperature value at the start of the defrost is displayed during defrost.
- 2 Temperature set value is displayed during defrost.
- 3 [dF] is displayed to indicate the defrost is in progress.

dd **Displaying Current Temperature Delay After Defrost Parameter**

This parameter defines the delay for displaying current temperature being active after defrost. It can be adjusted from 0 to 99 minutes.

dt **Dripping Time Parameter**

This parameter defines for dripping time after defrost.
It can be adjusted from 0 to 15 minutes.

dP **Temperature Alarm Delay After Dripping Parameter**

Damlamadan sonra sıcaklık alarmının aktif olma süresi bu parametre ile belirlenir.
0 ile 15 dakika arasında bir değer alabilir

PS **Compressor Start Delay at Power On Parameter**

When power is first applied to the device, This time delay must be expired for activation of compressor. It can be adjusted from 0 to 20 minutes.

St **Compressor Start-Start Delay Parameter**

This time delay must be expired between two activation of the compressor.
It can be adjusted from 0 to 20 minutes.

Co **Minimum Compressor OFF Time Parameter**

When compressor is inactive, this time delay must be expired for activation of the compressor. It can be adjusted from 0 to 20 minutes

Cn **Minimum Compressor ON Time Parameter**

When compressor is active, this time delay must be expired for deactivation of the compressor. It can be adjusted from 0 to 20 minutes.

Pd **Cabinet Probe Defect Parameter**

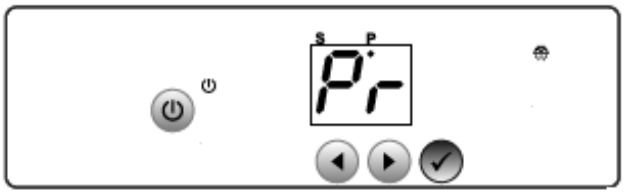
- 0 Compressor is OFF in case of cabinet probe defect.
- 1 Compressor is ON in case of cabinet probe defect
- 2 Compressor operates periodically according to [Pn] and [PF] time periods in case of cabinet probe defect.

Main Operating Screen

When SET button is pressed for 5 seconds, "P" led starts to blink. If programming mode entering password is different from 0, programming mode entering screen Pr will be observed.

Note1: If programming mode accessing password is 0, Temperature Unit Selection Screen CF is observed instead of programming Pr screen accessing password

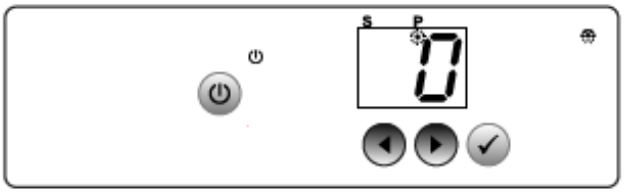
Programming Mode Entering Screen



Press SET button for accessing to the password entering screen.

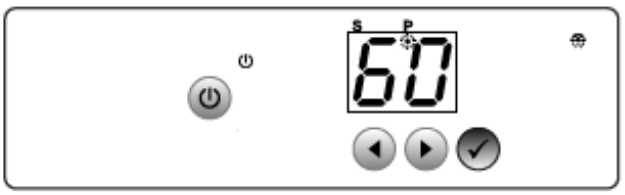
Note-2: If programming mode accessing password is 0 parameter values can be seen. But parameter values can not be changed.

Password Entering Screen



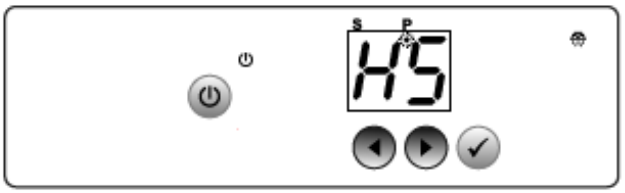
Enter programming mode accessing password with increment and decrement

Password Entering Screen



Press SET/OK button for entering the password.

Programming Screen



Press SET button for accessing to the parameter value. Press increment button for accessing to the next parameter, press decrement button for access to the previous parameter

CLEAN UP AND MAINTENANCE

⚠ The banquet must be cleaned regularly. The intervals depend on the usage and level of soiling (at least annually).

⚠ Before carrying out any cleaning or maintenance operations, unplug the unit.

⚠ Don’t touch or wet the machine compartment parts. This could result in failure or breakdown

⚠ To prevent possible damage, don’t clean the plastic parts with water above 40° C or in a dishwasher

Interior & Exterior of Cabinet

- Clean the interior and exterior at least once a week for sanitary use.
- Clean off the interior and exterior of banquet with a soft cloth soaked in cold or warm water containing the proper amount of neutral cleaner and wrung dry.
- Don’t use a water jet to clean the machine compartment
- Chemical agents other than neutral cleaner might cause damage to the interior and exterior surfaces.
- Any remaining detergent will damage metal or plastic surfaces. Use a soft cloth dampened with warm water to wipe it off.
- Don’t use the following items, they could damage painted or plastic surfaces

Polishing powder, alcohol, thinner, benzene, acidic or alkaline detergent, hot water, petroleum, soap powder, metal scourer or brush, etc. Especially detergent to clean grease on ventilator or microwave.

Some solutions other than the above may also damage painted or plastic surfaces. Immediately stop using such solutions if they cause any problems!

Condenser

Use vacuum cleaner or a soft brush to remove dust and stains from the condenser.

It is very important that the condenser does maximum heat transfer. Therefore, the surface of the condenser needs to be always clean. Maybe with the effect of the fan, dust may have accumulated in the intermediate section of the condenser.

If user clean the condenser with hard brush, such as dishwasher brush, the coating of condenser may peel off.

Door & Body Gaskets

The gaskets and its contact surface get soiled easily. Clean every surface of these parts thoroughly. Remnants of food will accelerate aging

A gasket in good condition provides well to close undamaged.

Exposure Time

The life of device is 10 years if it is used by under recommended conditions.

Failures

Solutions to the problems that may occur with the device are given in the table below. The information provided here does not include all of the problems that may occur.

If the safety device is activated, it means that there is a malfunction with the device; before reset, abolish the reasons found before. You can find potential problems and their causes in the list below.

The characteristic of the failure must be determined; product code and serial number are available from product identification labels.

After you make the following checks if you still have error or malfunction occured, **please contact an authorized service.**

PROBLEM	POSSIBLE CAUSE	REMEDY
The cabinet is not working	No power is supplied to cabinet	Check the power plug and cable are fault free
The compressor seldom stops running	Ambient temperature is too high	Ventilation needs to be improved
	Condenser or condenser filter are blocked	Check and clean condenser regularly
	Door gaskets are not sealing properly	Call authorized technician toreplace seals
Overflowing water from the condenser water tray	Frequent placement of hot food items in the cabinet	Do not place hot food items in the cabinet
		Only place food items with high water content in sealed containers in the cabinet
	Frequent opening of door or drawers	Verify whether cabinet specifications confirm it is suitable for current usage
Cabinet temperature is high	Condenser is blocked with dirt and dust	Check and clean condenser filter regularly
	Air flow within cabinet is blocked	Remove items of food blocking the air flow
	Ambient air is entering cabinet	Ensure door is closed
		Check for damage to the door and drawer seals
		Contact an authorized technician

TERMS OF GUARANTEE

1- Documents without sales date, factory and sales company approval on, are not valid. In order to benefit from the guarantee, guarantee document should be presented.

2- If the device is installed and operated following the instructions in the installation, maintenance and user's manual, it is warranted for failures resulting from failures resulting from workmanship and material failures.

3- The failures within the scope of guarantee, how and where these will be eliminated, and the way and place of maintenance is determined by .....

4- The guarantee is only valid provided that the guarantee terms and the instructions in the installation, maintenance and user's manual are fully complied with. The guarantee is only valid for the warranted device, and no other right or compensation for some other thing may be claimed.

5- If the information about the kind and the type of the device, serial numbers printed on the guarantee document are scraped, rubbed or changed, then the guarantee is not valid.

6- The guarantee covers only maintenance and repairing of material or workmanship failure within the valid guarantee period. Failures and parts within the scope of the guarantee are repaired and replaced without any charge. Replaced parts belong to .....

7- The failures occurring in the device may only be handled by service personnel authorized by ..... If people who are not authorized handle the device, it will not be covered by the guarantee.

8- Installation should be carried out by authorized service personnel and the service should be informed about the location change of the device.

9- When any failure occurs during operation, authorized service dealer should be contacted.

10- Guarantee does not cover failures and damages resulting from loading, unloading and shipping, which are outside the responsibility of ..... Similarly, failures and damages resulting from external factors are not covered.