



USER MANUAL SAMSUN

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1. Preface

Dear Customer,

Read the user manual carefully before using your appliance. The User Manual contains important information about the installation, safety, use and maintenance of your appliance. This way, you can protect yourself and also prevent any damage to your appliance. Please keep the User Manual and forward it to the next owner of the appliance.

Ahmet Yar products do not contain PCB, PCT, asbestos, formaldehyde, cadmium, similar harmful substances and substances which could harm the user. The manufacturer has no responsibility for any damages that may occur in cases such as incorrect use of the appliance, installation errors, failure to do periodic maintenance, failure to use original spare parts, failure to comply with the information provided, warnings and precautions.

2. Safe operation

Some descriptions and applications in this manual may vary by the appliance type and model.



THIS APPLIANCE IS MANUFACTURED IN ACCORDANCE WITH LEGAL SAFETY REGULATIONS. MISUSE MAY DAMAGE PEOPLE AND HARM THE OPERATOR.

For safe use, the following rules should be observed:

- Before connecting the appliance to the electrical socket, compare type label data (voltage and frequency) with the data of your power grid. These data must match with each other to ensure that your appliance is not damaged. If in doubt, please call your electrician.
- The safety of your appliance can only be ensured if the protected cable system (earthing) is furnished in accordance with the rules. It is very important that this basic security measure is met. If in doubt, have a specialist examine the electrical installation. Otherwise, the manufacturer cannot be held responsible for any damages that may occur. (E.g. Electric shock)
- Installation, connection and repair of the appliance should only be carried out by specialist personnel. Otherwise, the manufacturer cannot be held responsible for any potential dangers to the user.
- Do not use an extension cord in any way on the electrical connection of the appliance. Extension cables cannot provide the necessary safety for your appliance.
- Do not keep explosive materials or materials containing flammable gases (eg. spray boxes) in your appliance. It can cause mixtures to explode.
- Do not operate power tools inside the appliance. There may be a spark. Danger of explosion!
- Never use steam pressure cleaning tools during the cleaning of the appliance. Pressured steam may leak into electrically conductive parts and cause short circuits.
- If you have any doubts about the electrical connection, operation or safety of the appliance, ask your service for help.
- Do not remove any external protection cover unless otherwise specifically specified in this manual. Otherwise, you may contact electrical parts that could be life-threatening.
- All work on electrical parts must be carried out by an authorised and expert electrician or person.
- Maximum loading limits shall be taken into account when products are loaded into the appliance.
- Protective equipment shall be used during cleaning and maintenance of the appliance. E.g: Gloves)
- Do not allow children to play with the appliance.
- The appliance shall not be used by people with physical (visual, audio) or mental disabilities, children and people with lack of experience and knowledge, without the supervision of a person responsible for their safety.
- Children shall be supervised when using the appliance and made sure that they do not tamper with the appliance.

3. Introduction

This manual was prepared for SAMSUN appliance. This document includes general information on how to operate the appliance, its technical specifications, installation and assembly, information and recommendations for users, and cleaning/maintenance operations.

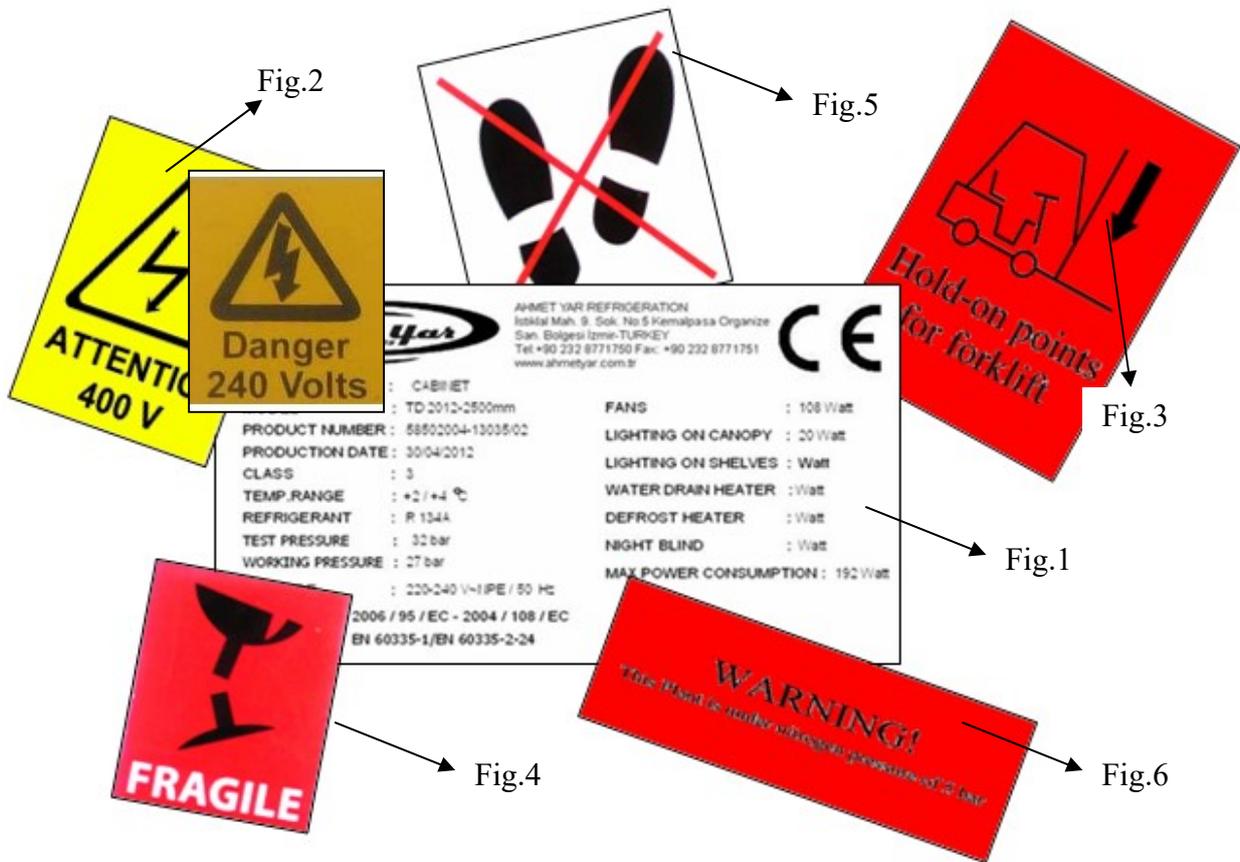
SAMSUN is a refrigerator which is designed as multi-rack, vertical type, rear-door or without door. It is proper for use of supermarkets and hypermarkets by means of high performance, wide display and loading area. It is designed as modular with the lengths of 937mm, 1250mm, 1875mm, 2500mm, 2811mm and 3750mm.



4. Warning and Specification Labels on the Appliance

The labels on the appliance and their general content which may vary depending on the type and model of the appliance are as follows.

- **Product Introduction Label (Figure.1):** The product introduction label is located inside the cabinet and contains technical information about the appliance, such as: Manufacturer logo and address information, product certificate and manufacturer's quality certificates, appliance model, serial number, date of manufacture, climate class, temperature range, type of refrigerant used in the appliance, approved certificates of the appliance and the directives that the appliance conforms, test pressure, operating pressure, operating voltage values, power values for the evaporator fan power values for the lighting, power values for the night curtain, power values for the defrost resistors, power values for the frame resistors, power values for the glass resistors, etc.
- **High Voltage Label (Figure.2):** The high voltage label is on the appliance's electricity box.
- **Transport Label (Fig.3):** Pallets are installed on the refrigerators for transportation purposes. Forklift or pallet transport can be done by these pallets. There is a label on the appliance indicating the parts that can be used for load bearing during transport. Transport shall be done so that the label in question coincides with the middle section of the forklift arms.
- **Fragile Label (Figure.4):** This label on the product means that there is a risk of breakage during transport. Care shall be taken to prevent any damage that may occur at this point.
- **Do not step on it label (Figure.5):** Located on the base of the appliance, over the pan.
- **Pressure Label (Figure.6):** The pressure label is located at the outlet of copper pipes. It is used for the determination of the amount of nitrogen.



5. Norms and certificates

Norms used as reference and certified certificates of the appliance;
 EN 60204-1; EN 61439-1; EN 61439-2

ENVIRONMENTAL CLIMATIC ENVIRONMENT (EN 23953-2)

This appliance has been tested in accordance with Climatic Environment 3.

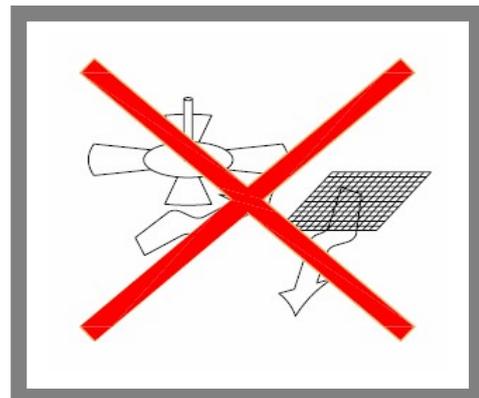
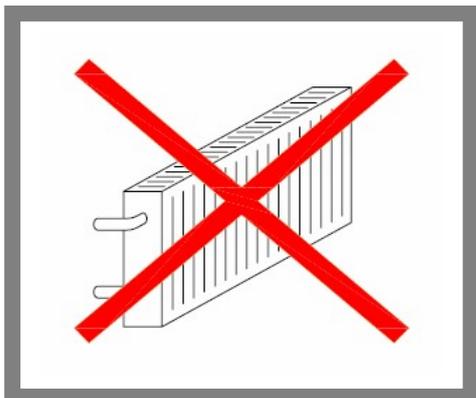
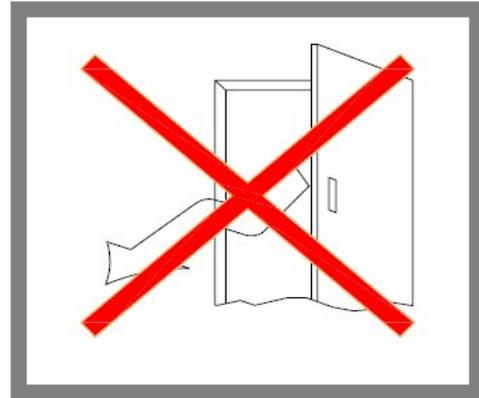
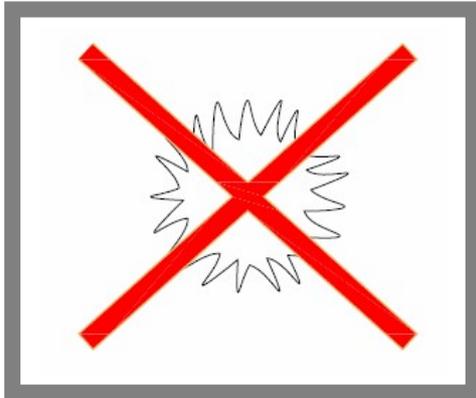
Climatic Environment	Dry Air Temperature	Relative Humidity	Dew Point
1	16°C	%80	12°C
2	22°C	%65	15°C
3	25°C	%60	17°C
4	30°C	%55	20°C
5	40°C	%40	24°C
6	27°C	%70	21°C

Directives to which the appliance is in conformity with EEC 73/23 , EEC 98/37

6. Placement and Environmental Issues

The following clauses shall be observed for the placement of the appliance.

- Do not place your appliance exposed to direct sunlight.
- Do not place your appliance in front of a door.
- Do not place your appliance near any heat source.
- Do not place your appliance in a place exposed to direct airflow, such as a fan, air conditioner etc.
- Do not place your appliance outdoors.
- Do not place your appliance near explosive gas sources



7. Cleaning, Maintenance and Technical Service



MAKE SURE THE REFRIGERATOR MAIN SWITCH IS OFF OR ELECTRIC PLUG IS NOT CONNECTED BEFORE ANY MAINTENANCE AND CLEANING!

Make sure that the packaging is not damaged when the appliance first delivered. Unpack without damaging the appliance. Make sure that no parts are damaged or are out of place. In case of any damage, call the supplier.

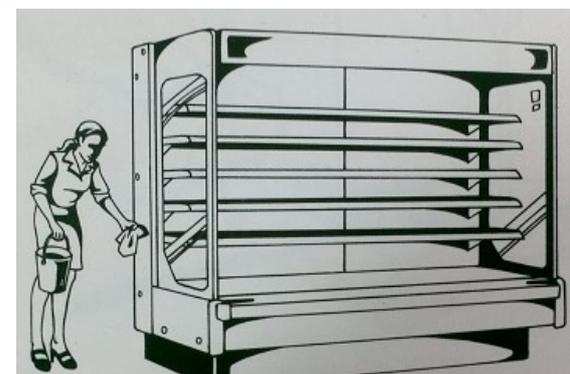
Maintenance and cleaning of your appliance is mandatory at certain time intervals. The cleaning shall be done by the user. Cleaning includes the cleaning of the internal and external surfaces of the appliance. Before cleaning your appliance, turn off the cooling and lighting switches and disconnect the power. Take the products inside the appliance and store them to a place where they will not deteriorate during the cleaning process.



DO NOT USE ABRASIVE SUBSTANCES, ALCOHOL, SODA OR CHEMICAL SOLVENTS AS CLEANING MATERIALS!

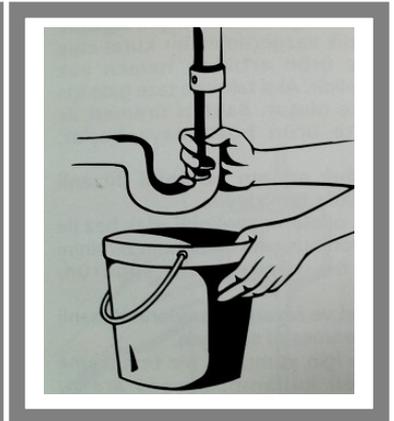
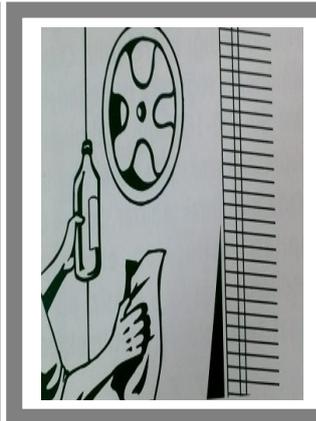
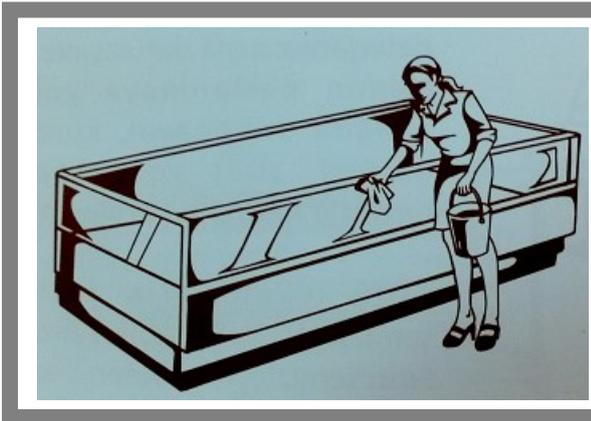
A. External Cleaning (Daily/Weekly)

- Clean the outer parts of the cabinet weekly with detergent and warm water.
- Clean using a soft cloth and clean water.
- Do not use materials, abrasives, scrubbing wires or solvents which could damage the outer surface.
- Do not make contact with water or detergent on electrical parts of the appliance.
- Do not use alcohol to clean the plexiglass parts.



B. Internal Cleaning (Monthly)

- Before cleaning the internal parts of the appliance, wait for the internal temperature to reach ambient temperature.
- Remove all removable parts (eg. pan, shelves, various wires, etc.), clean them with hygienic cleaners mixed with warm water and dry carefully.
- When cleaning the pans, make sure that foreign materials and dirt do not fall into the fans.
- Wipe the dirt from the evaporator section with a damp cloth, after cleaning the liquid and leftovers from the products.
- Disinfect the interior part of the appliance so that bad odors caused by decays and deterioration do not affect the products inside. When disinfecting, do not use substances which has a strong odor and may cause acidification.
- If the water drain is completely clogged, wash it with plenty of water without removing it. Repeat this process until you are sure that the water drain has been cleaned.
- In case of abnormal situations on the appliance during or after the cleaning process, call the authorized service



NEVER USE STEAM PRESSURE CLEANING TOOLS DURING THE CLEANING OF THE APPLIANCE. PRESSURED STEAM MAY LEAK INTO ELECTRICALLY CONDUCTIVE PARTS AND CAUSE SHORT CIRCUITS.



DO NOT USE HOT WATER ON COLD GLASS SURFACES. THIS MAY CAUSE THE GLASS TO SHATTER AND CAUSE INJURIES!

After cleaning, put back the products into your appliance and make sure that the fans, ceiling lights, electrical cables and all other electrical equipment are dry. Switch the lighting and cooling on.

C. Technical service

- Make sure that the ambient temperature and moisture are not outside the values specified. Therefore, make sure that the air conditioning and heater devices are fully operational inside the store.
- Make sure that the products are not exposed to direct sunlight.
- Isolate the windows of the store against solar rays.
- Do not point any spotlights directly on the appliance.
- Do not block the suction grilles in such a way to prevent air intake.
- Use the appliance only for storage of refrigerated products.
- Make sure the appliance cools continuously. Check the refrigerator twice a day.
- Load the appliance in accordance with the loading line, do not exceed the upper limit.
- When the appliance fails, immediately remove the products from the device.
- Replace any fallen screws or failed lights immediately.
- Periodically check the automatic defrost.
- Make sure there are no abnormal water condensation, if so, call the cooling technician immediately.
- Always perform periodic maintenance.

Appliances may malfunction even when they are maintained and cleaned properly. When you notice that the appliance is not working, follow the instructions below:

- Is the cooling switch on?
- Is everything normal in the cooling group's fuse box?
- Is the power on?

If the answer to the above questions is YES, there may be a problem with the appliance, cooling group or the installation. Contact the technical service immediately. Transfer the products in your refrigerator to another medium that prevents them from deteriorating, until the technical service arrives.

IN CASE OF GAS LEAK AND COMBUSTION; Do not stay in the room if there is no airflow. Unplug the appliance. DO NOT USE WATER TO EXTINGUISH THE FIRE. ONLY USE A FIRE EXTINGUISHER.



**IN CASE OF GAS LEAK AND COMBUSTION;
DO NOT STAY IN THE ROOM IF THERE IS NO AIR FLOW. UNPLUG THE APPLIANCE. DO
NOT USE WATER TO EXTINGUISH THE FIRE. ONLY USE A FIRE EXTINGUISHER.**

8. Electrical connection



BEFORE MAKING THE ELECTRICAL CONNECTIONS, CHECK THE ELECTRICAL DIAGRAM ON THE PILOT BOX AND MAKE THE CONNECTIONS ACCORDING TO THIS DIAGRAM!

The following details shall be checked when electrical connections are made.

- Automatic switch and main switch protected against electric currents must be used for the appliance. In case of emergency, the user shall know where the easily accessible switch is located.
- The safety of your appliance can only be ensured if the protected cable system (earthing) is furnished in accordance with the rules. It is very important that this basic security measure is met. If in doubt, have a specialist examine the electrical installation.
- The maximum current fluctuation shall be $\pm 6\%$.
- The thickness of the cable for the power line must be at least 2.5 mm² thick and it shall endure high current.
- The power line cable shall not be longer than 4-5m, the cable cross section shall be increased if a cable longer than that is necessary.
- Do not use an extension cord in any way on the electrical connection of the appliance.
- For the refrigerator to work properly, make sure that the temperature and humidity are in accordance with the values specified in EN441 and that the climate class is 3 (+ 25°C; R.H.60%)
- All work related to the electrical connection of the device and other electrical parts shall be carried out by an authorized and expert person with an electrical certificate.

9. Recycling

Each country separates and recycles refrigerator parts according to their waste disposal and environmental laws. Parts used in our products in general are as follows;

Painted sheets: Poles, shelves, shelf handles, back panel, pans.

Copper-Aluminium: Condenser, evaporator, electrical parts.

Galvanized sheets: Bottom panels, painted panels, simple pieces, pan.

Polyurethane: Thermal injection.

Thermopane: Glass parts.

PVC: Handles

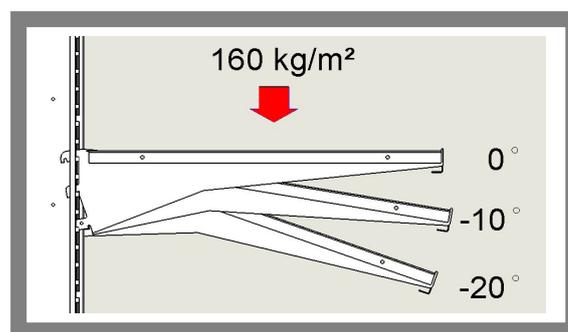
Polystyrene: Thermoform side walls.

Polycarbonate: Lighting cover.

10. Loading products into the refrigerator

Important information about loading is stated below.

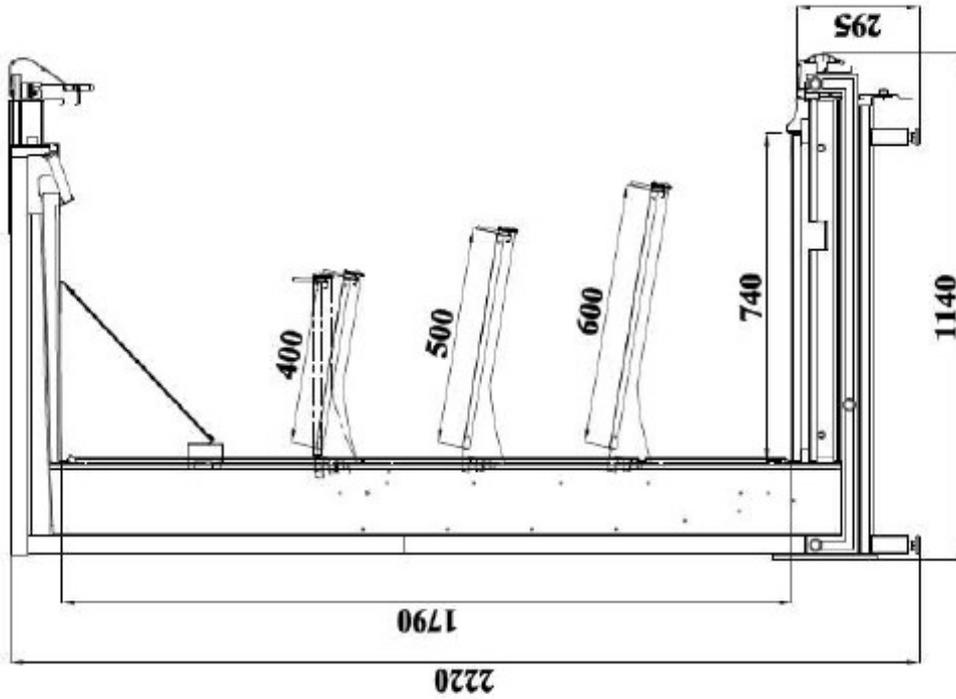
- Place the products on the shelves neatly.
- Do not exceed the loading capacity in pans and shelves. (160 kg/ m²)
- Shelves can be used at different angles depending on the appliance type. (0°, 10°, 20°)
- Do not leave space between products loaded on the same shelf in appliances with shelves.
- Leave a minimum of 30mm space for air circulation between the upper shelf and the product in shelved appliances.
- Do the loading appropriately considering the product consumption rates.
- Do not load products anywhere other than shelves and pans.
- Do not install products that are not allowed to be cooled into your appliance.
- Do not load the appliance in a way that can prevent the cold air flow. (E.g. Air intake area)



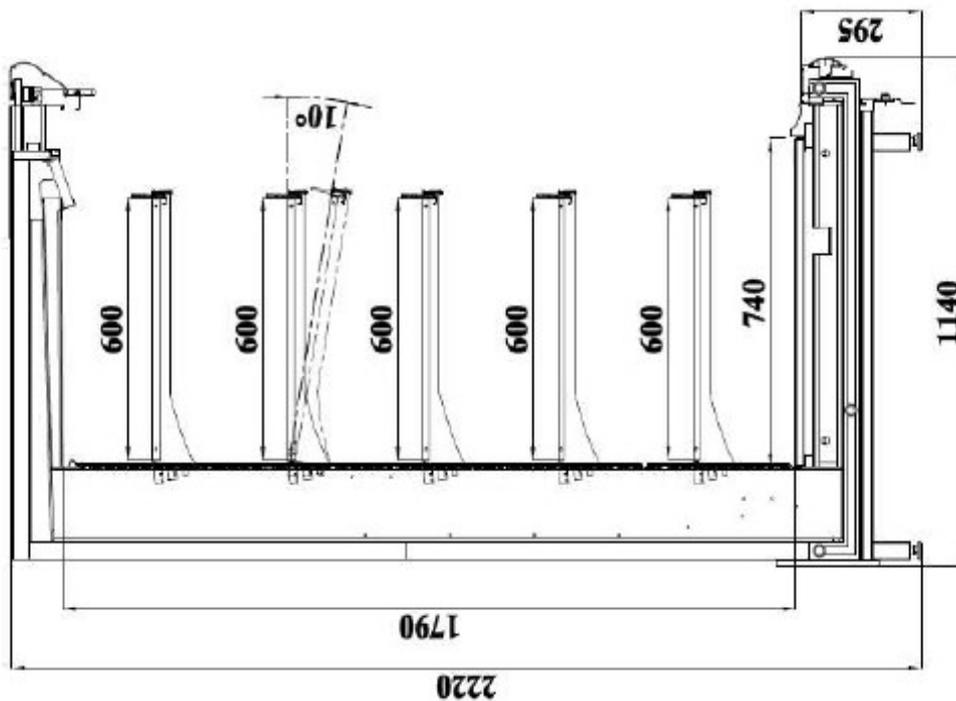
11. Technical details

TECHNICAL DETAILS		SAMSUN TECHNICAL DATA SHEET				
		1250	1875	2500	3750	
Refrigeration Load						
Case Temp (°C)		-1/+5				
Evap Temp (°C)		-7				
Duty (kW)	DL	1,68	2,52	3,35	5,03	
	ML	2,00	3,00	4,00	6,00	
	FVL	1,57	2,35	3,13	4,69	
Expansion Valve (R404)		TES2 Or.01	TES2 Or.02	TES2 Or.03	TES2 Or.04	
Pipe Size - Suction		5/8"	5/8"	5/8"	5/8"	
Pipe Size - Liquid		3/8"	3/8"	3/8"	1/2"	
Pipe Size - Drain		40 mm				
Cubic Capacity (dm ³)		-	-	-	-	
Display Area (m ²)		4,68	7,02	9,35	14,03	
Defrost Details						
Defrost Type		Air				
Duration (minutes)		6 x 45 min.				
Termination		Temp (+6 °C)				
Defrost Heaters						
Evaporator (Coil)		-	-	-	-	
Frame		-	-	-	-	
Doors		-	-	-	-	
Front Glass		-	-	-	-	
Side Glass		-	-	-	-	
End Walls		-	-	-	-	
Body		-	-	-	-	
Water Drain		-	-	-	-	
Air Return		-	-	-	-	
Air Intake		-	-	-	-	
Electrical / Fans						
Supply		230 V / 50 Hz				
Lighting (Canopy-T5)		1x28W	2x21W	2x28W	3x28W	
Evaporator Fans "Standart"		2x38W ø254mm / α:28°	3x38W ø254mm / α:28°	4x38W ø254mm / α:28°	6x38W ø254mm / α:28°	
Cabinet Controller Setup						
<small>The cabinet was fitted with Danfoss EXC514B controller utilising five PT1000 probes located as follows:</small>						
S1 Evaporator Inlet						
S2 Evaporator Inlet						
S3 Return Air						
S4 Supply Air						
S5 Defrost Termination						
The cabinet controls on the air off probe (S4)						
Parameter		Settings				
Case control set point		n/a				
Differential						
r15						
r16						
r17						
A03						
A12						
A13						
A33						
d02						
d03						
d04						
d06						
d07						
d09						
o01						
o17						
o29						
Design Conditions						
Temp (°C)	25	Humidity (%)	60	Cross Draft Air Speed (m/s)	0,2	
 <small>TECHNICAL DOCUMENTATION</small>		<small>CHAPTER REVISION STATUS</small>				
		<small>ORD.</small>	<small>DATE</small>	<small>CHANGE ORDER</small>	<small>ORD.</small>	<small>DATE</small>
<small>PRODUCT</small>	SAMSUN	<small>A</small>		<small>D</small>		
<small>DATE of 1st ISSUE</small>	29.04.2013	<small>B</small>		<small>E</small>		
<small>ORDER</small>	M. DEMIRGÜNES	<small>C</small>		<small>F</small>		

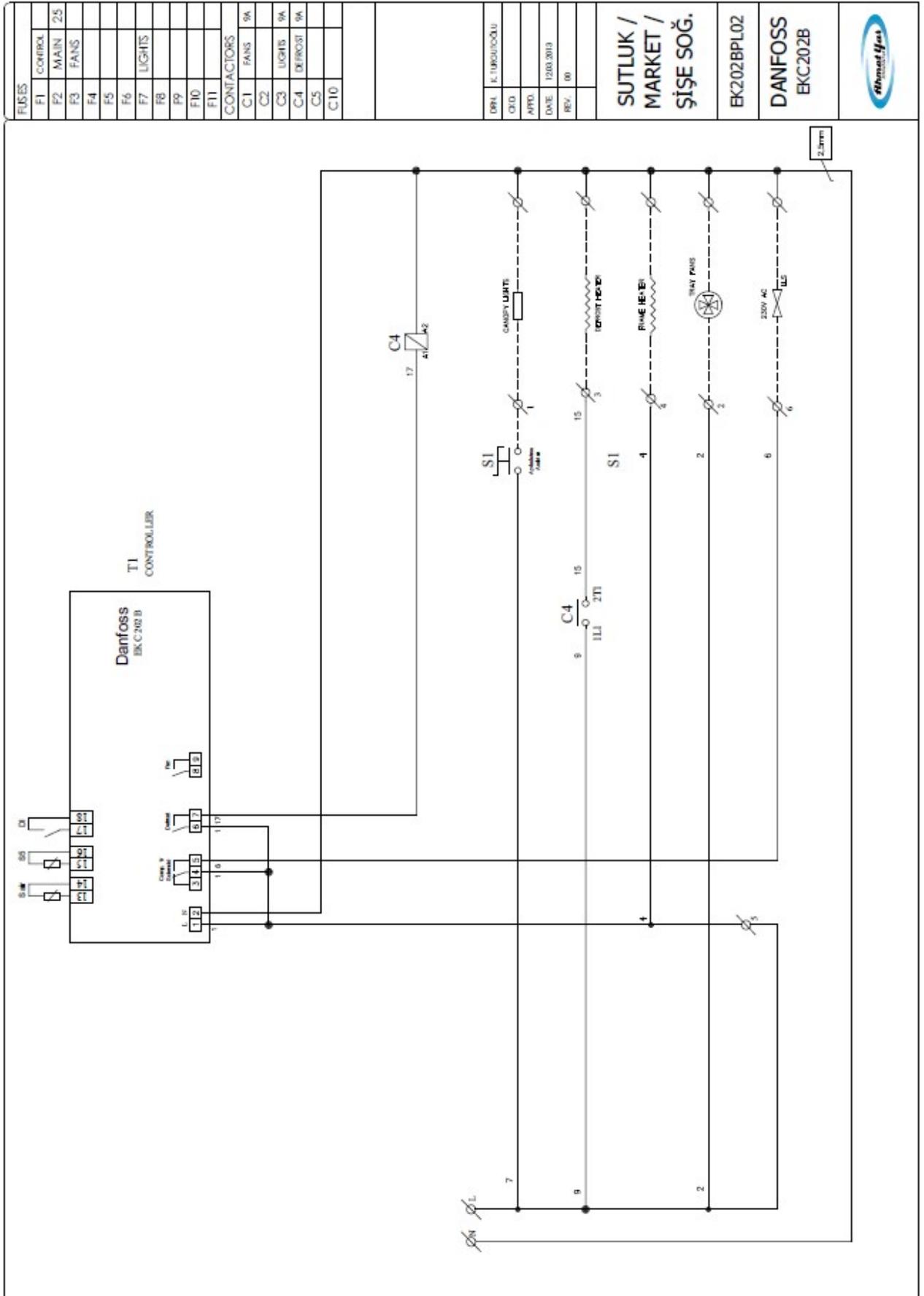
SAMSUN TECHNICAL DRAWINGS



SAMSUN WFVL



SAMSUN WDL



12. Installation and Assembly

This section includes the installation and assembly operations of the product. Before starting the installation and assembly, the user manual of the product should be read thoroughly and the safety-related items specified in the manual should be followed.

Joining two refrigerators

Follow the sequence below to combine two or more refrigerators:

- Remove sidewalls (if any)
- Adjust the height of the legs of the cabinets and bring their aisles on the same level. Check the accuracy using a water gauge (Figure 1).

Front body and upper panel installation:

There is a cabinet puller sheet (two in some models) in refrigerator ceilings (Figure 4) and fixed to the decor aluminum (Figure 2) in the front lower part of the body. Attach 1 pc $\text{Ø}6 \times 100$ mm joining pin to the lower decor aluminum (Figure 2). Attach anchor bolts to the connection bolts in cabinet puller sheets and tighten (Figure 3-4). Connection members and places are shown in Figure 5-6 and Table 1



Figure.1



Figure.2



Figure.3

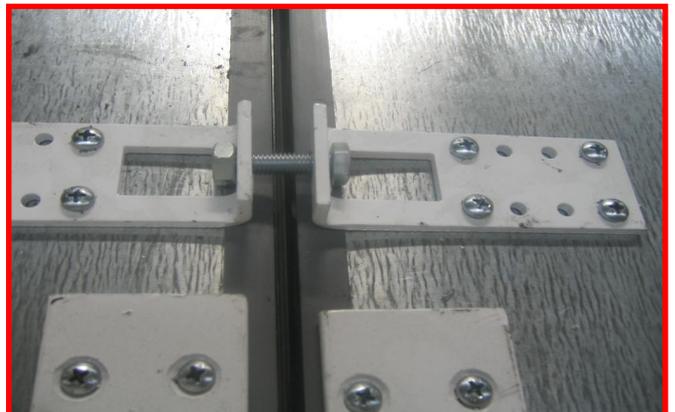


Figure.4

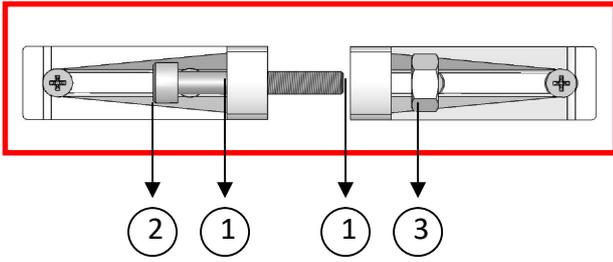


Figure.5

POS NO	Part name
1	Cabinet puller sheet
2	M8x50 6K Allen bolt
3	M8 nut

Table.1

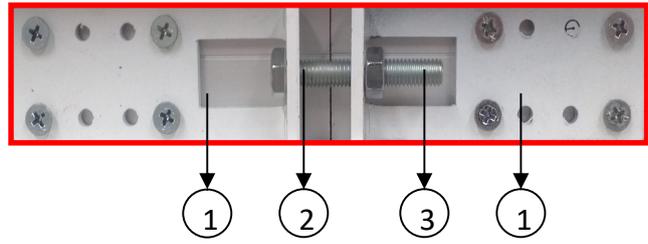


Figure.6

POS NO	Part name
1	Cabinet puller sheet
2	M8x40 6K coated bolt
3	M8 nut

Table.2

Side Strut Connections:

There are two screw holes in side struts to fix two refrigerators to each other. Two refrigerators shall be attached to each other by use of materials stated in Table 3 and in points shown in Figure.7-8.



Figure.7

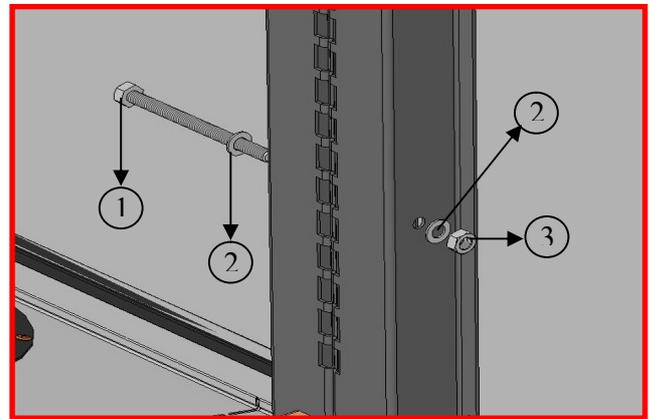


Figure.8

POS NO	Part name	Pieces
1	M8x90 6K coated bolt	2
2	Washer	4
3	M8 nut	2

Table.3

Plastic buffer connection

Attach plastic bumper profiles to bumper aluminum via the nails on it. (Figure.9)



Figure.9

Upper Decor connection:

Attach upper decor aluminium to the channel fixed on side struts and tighten with a screw. (Figure.14-15)

Attach 3 pieces $\varnothing 3,80 \times 70$ mm joining pin to upper decor aluminium pin conduits. (Figure.16-17)

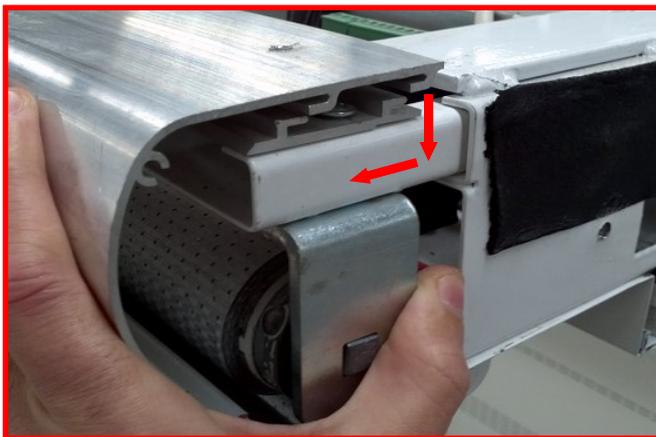


Figure.14

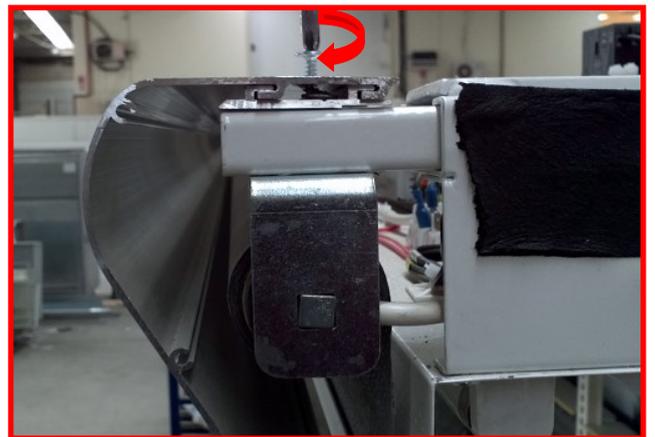


Figure.15

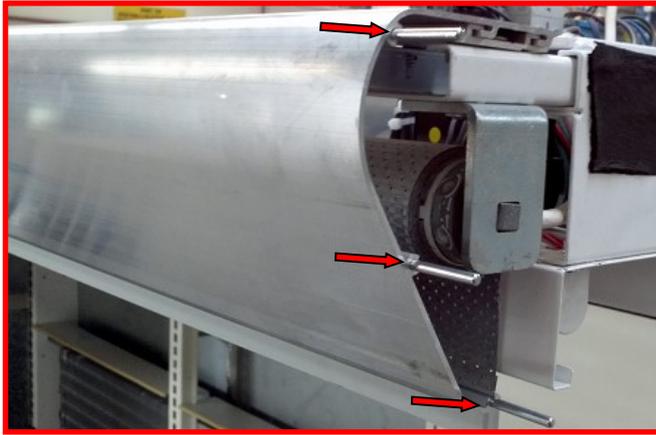


Figure.16

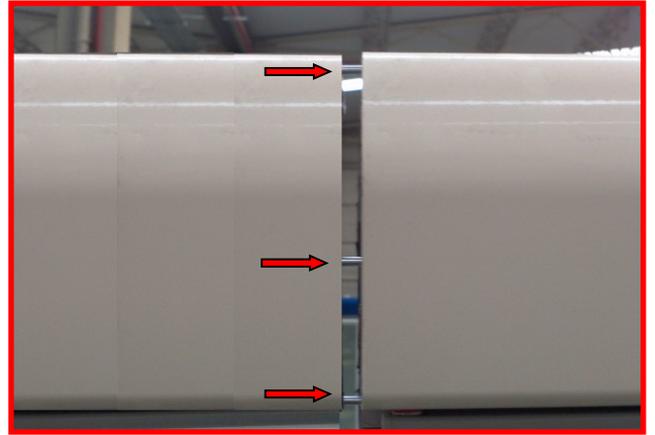


Figure.17

NO	Part name	Pieces
1	Ø3,80x70 mm. Joining pin	3
2	M4,2x15 self tapping screw	2

Installation of refrigerator side to the refrigerator:

Side panels are combined by screwing in points shown in Figure.1 via 7 screw holes shown in Figure.18. Two screws are fixed to the side strut sheet and other 5 screws are fixed to the profiles in the upper panel and lower panel. Front side of side panel should be aligned with the front part of lower decor during the installation.



Figure.18



Figure.19

NO	Part name	Pieces
1	6,3x80 6K drill tip screw	7
2	6,3mm epidyen gasket	7