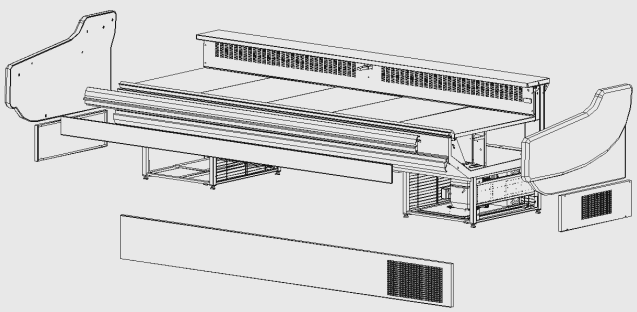
JORDAO COOLING SYSTEMS®

Installation Manual

SUPER LIDER II



Index

1 -Introduction

Our Quality Policy is orientated towards the ***"creation of products that satisfy the customers' real needs, providing an excellent service."***

We have created installation manuals for all our products, in which our customers will find useful information that is indispensable for the correct installation and maintenance of the equipment we produce. Therefore, we recommend that you read this manual carefully to assimilate all the information it contains correctly. **Whenever you receive any alteration/update,** immediately substitute the manual, totally or partially, according to our instructions. Keep the original and any copies up to date**. Do not forget that the manuals are indispensable for your technicians.**

For technical assistance always request the components you need using the equipment serial number and by their respective code and designation (see set drawings)**.**

2 -General Concepts

2.1 -Installation

- Install the appliance(s) in **unimpeded areas**, far away from sources of heat, draughts, radiators, the sun's rays, ovens, outlets of air-conditioning, fans, etc. and protected from rain. Never install in an environment with temperatures above **25 ºC**. The relative humidity of the air should be equal to or lower than **60**%. For higher temperatures, the appliances will have to be equipped with compressor groups suitable for the tropics.
- Install appliance(s) far away from **dangerous environments** where there is risk of fire, radiation or explosion.
- Maintain the surrounding **areas unimpeded** and verify that the ventilation grills are not obstructed.
- Any adverse conditions will **affect** the performance of the appliance and they will provoke a significant **increase** in **energy** consumption.
- Connect the appliance in accordance with the specific instructions for each (**230 V and 50 Hz**). Verify that the power socket has an **earth wire** because it is compulsory by law.
- Before placing products in the appliance(s) the equipment should have been **running** for at least **one hour** with the curtains lowered, lights out, closed doors, etc. according to each product.
- Our products carry the **CE mark**, which guarantees that all the safety norms have been taken in consideration.

2.2 -Helpful Hints for the User

- **Regularly restock** the appliance(s) with products to avoid their large-scale entrance at any time. Do not place products beyond the defined **load limits** for each case. Remember that the products should be placed at a **temperature close** to that of use and that the appliances are for conservation and not for cooling. Do **not obstruct** air outlet grills next to the evaporating unit or suction grills.
- Check periodically that the **power fans**, when equipped, are all fully **working**. Call for technical assistance in the event of these not working because they are essential for a good circulation of air inside the appliance. Do not obstruct the power fans when restocking with products.
- Conduct a periodic **cleaning** of the **condensing unit** (at least once a month) because the performance is greatly improved and the energy consumption reduced. Always keep the ventilation grills and the space surrounding the compressor groups unimpeded.
- Check that the **power fans** are working. In the event of them non-functioning, disconnect the appliance from the current immediately to avoid burning-out the compressor, and call technical assistance to solve the problem.

- Check regularly if the **evaporating unit** is blocked or not. If it is, proceed with a manual defrost. If the problem persists call technical assistance.
- Check the state of conservation of the **plug and power socket** regularly, paying attention to any excessive heating.
- When doing any cleaning, **disconnect** the appliance from the electrical power supply.
- **Always** keep the appliance(s) **clean and dry**, both inside and out. Only clean it with water and a **neutral detergent** and do not wet the electric or electronic parts. Apart from having a more hygienic appearance, it will guarantee better operation and durability.
- Do not use **abrasive** products (e.g. chlorine based solvents and scotch-brite cleaning pads). The use of these can damage the protective coating of the appliance(s) and contribute to a more rapid corrosion.
- Do not use **steam** or **high pressure** water for cleaning.
- Regularly **clean** the **run-off channels** for melt water. Do not allow residues, particularly blood, pieces of meat and milk, to remain for a long time in its inside, since these will provoke smells and will contribute to **corrosion**.
- When you decide not to use the appliance any more, or desire to substitute it by another, you should proceed to its **recycling** according to the regulations in force. Bear in mind, that you will need to ask a **specialized person** to recover the gas and oil from the refrigeration circuit. More over, after demolishing the appliance, you should **separate** the different materials which compose it: plastics, aluminium, rubbers, glasses, metals, etc.
- In case of **fire**, use a chemical dust extinguisher, pointing the stream to the bottom of the flames.

3 -General Characteristics

3.1 -Introductions

Large exposition Display Cabinet for butchery and delicatessen.
Fan assisted cold.

3.2 -Refrigerated Fan Assisted Super Lider II Display Cabinet

In this display you can mainly expose delicatessen products..
The refrigeration is fan assisted and its temperature lays between 0℃ and 3℃ in an environment of 25°with 60% of relative humidity.
A digital control unit controls the temperature.

3.3 -Refrigerated Fan Assisted Super Lider II Corners

In this display you can mainly expose delicatessen products..
The refrigeration is fan assisted and its temperature lays between 0℃ and 3℃ in an environment of 25°with 60% of relative humidity.
A digital control unit controls the temperature of the inner corners and the digital control unit of the smaller display cabinet, which is coupled to this corner, controls the temperature of the outer corners.
Refrigerated outer corners have remote group.

3.4 -Neutral Super Lider II Corners

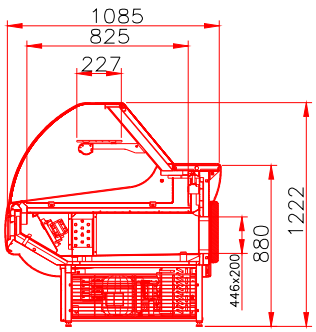
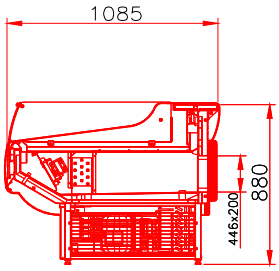
In this model, you may expose mainly products that do not need cold preservation.

4 -Climate Class Table

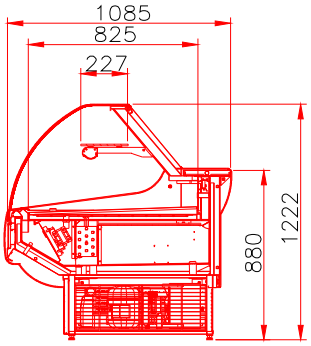
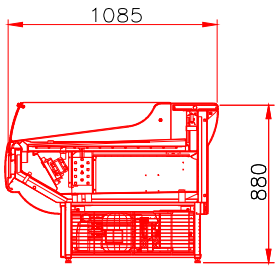
Model	Temperature (ºC)	Climate Class (EN 441)
SLRV*	0 / 3	3M1

5 -Models

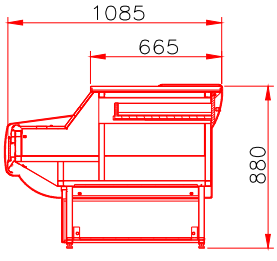
5.1 -Fan Assisted Refrigerated Display Cabinet Section

	
Curved Glass with Shelf	Self Glass

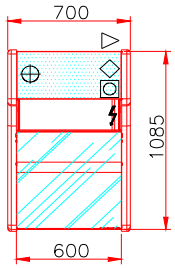
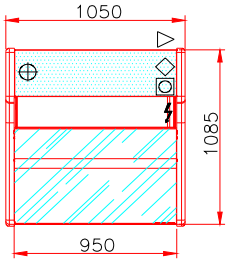
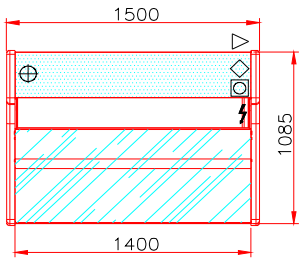
5.2 -Refrigerated Cover Display Cabinet Section

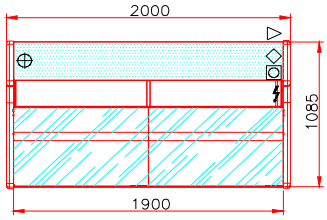
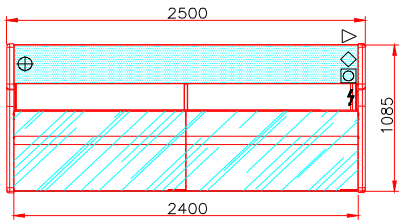
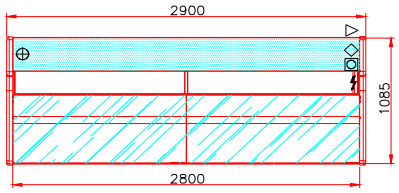
	
Curved Glass with Shelf	Self Glass

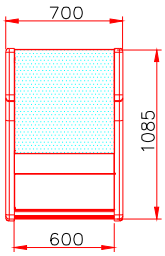
5.3 -Support Case Section


Support Case

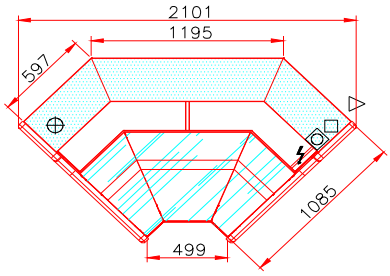
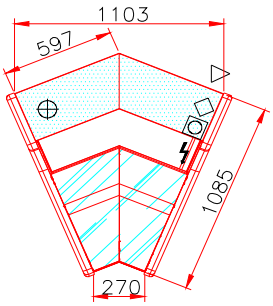
5.4 -Linears

		
Refrigerated Fan Assisted remote or built in group 70	Refrigerated Fan assisted / Refrigerated Cover remote or built in group 105	Refrigerated Fan assisted / Refrigerated Cover remote or built in group 150

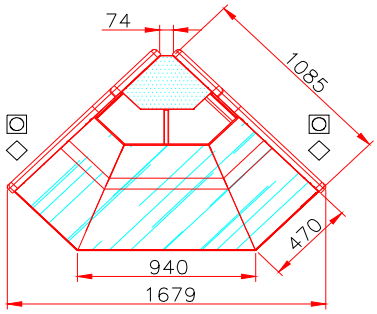
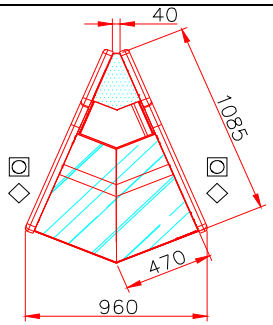
		
Refrigerated Fan Assisted remote or built in group 200	Refrigerated Fan assisted / Refrigerated Cover remote or built in group 250	Refrigerated Fan Assisted remote or built in group 290


Support Case 70

5.5 -Inner Corners

	
Corner 90º remote or build in group	Corner 45º remote or build in group

5.6 -Outer Corners

	
Corner 90º remote group	Corner 45º remote group

6 -Technical Characteristics

6.1 -Refrigerated Fan Assisted Super Lider II Display Cabinet Remote group

Characteristics/	Units			MODEL			
Electrical Components		**SLSG 70**	**SLSG 105**	**SLSG 150**	**SLSG 200**	**SLSG 250**	**SLSG 290**
Dimension without side panel	mm	550	950	1400	1900	2400	2900
Fans	A	0,02	0,03	0,04	0,06	0,07	0,08
	W	4,4	6,6	8,8	13,2	17,2	17,6
Illumination	A	0,1	0,2	0,3	0,4	0,4	0,6
	W	30	36	72	99	92	144
Evaporation Resistor	A	0.41	0.41	2,4	2,4	2,4	2,4
	W	92	92	550	550	550	550
Refrigeration Production*	kCal/h	261	439	610	998	1216	1216
	W	304	511	709	1160	1414	1414
Nominal Power (max.) W/ Kit	W	126	135	631	662	659	712
Nominal Power (max.) WO/ Kit	W	34	43	81	112	109	162
Working Temperature	°C	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3
Exposition Surface	m2	0.40	0.72	1.06	1.44	1.82	2.20
Weight	kg	45	60	158	198	248	290
Weight with package	kg	90	95	253	295	350	405
Power Source	V~ / Hz	230 / 50	230 / 50	230 / 50	230 / 50	230 / 50	230 / 50
Cooling Gas	-----	R 404 A	R 404 A	R 404 A	R 404 A	R 404 A	R 404 A
Climate Class (EN 441)	-----	3M1	3M1	3M1	3M1	3M1	3M1

* For an evap.Temp. = -10 ºC and a Cond.Temp. = + 45 ºC
Envi.Temp. = 25 ºC and R.H. = 60 %

6.2 -Refrigerated Fan Assisted Super Lider II Display Cabinet with Group

Characteristics/	Units			MODEL			
Electrical Components		**SLCG 70**	**SLCG 105**	**SLCG 150**	**SLCG 200**	**SLCG 250**	**SLCG 290**
Dimension without side panel	mm	550	950	1400	1900	2400	2900
Compressor	A	1.55	1.87	2.96	2.69	3.27	4.42
	W	241	299	390	556	685	820
Reference (Electrolux)	-----	ML40TB	ML60TB	ML80TB	MP12TB	MP14TB	MX18TB
Motor ventilator	A	0.15	0.15	0.15	0.15	0.15	0.15
	W	35	35	35	35	35	35
Fans	A	0.15	0.15	0.15	0.31	0.46	0.46
	W	36	36	36	72	108	108
Illuminations	A	0.13	0.15	0.32	0.43	0.41	0.65
	W	30	36	72	99	92	144
Evaporation Resistor	A	0.41	0.41	2,39	2,39	2,39	2,39
	W	92	92	550	550	550	550
Refrigeration Production *	kCal/h	261	439	610	998	1216	1216
	W	304	511	709	1160	1414	1414
Nominal Power (max.) W/ Kit	W	434	498	1083	1312	1470	1657
Nominal Power (max.) WO/ Kit	W	342	406	533	762	920	1107
Working Temperature	°C	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3
Exposition Surface	m2	0.49	0.72	1.06	1.44	1.82	2.20
Weight	kg	65	80	178	228	278	320
Weight with package	kg	110	115	273	325	380	435
Power Source	V~ / Hz	230 / 50	230 / 50	230 / 50	230 / 50	230 / 50	230 / 50
Cooling Gas	-----	R 404 A	R 404 A	R 404 A	R 404 A	R 404 A	R 404 A
Cooling Gas Weight	g						
Climate Class (EN 441)	-----	3M1	3M1	3M1	3M1	3M1	3M1

* For an evap.Temp. = -10 ºC and a Cond.Temp. = + 45 ºC
Envi.Temp. = 25 ºC and R.H. = 60 %

6.3 -Corners

Characteristics/ Electrical Components	Units	MODEL			
		CE - 90º	CE - 45º	CI - 90º	CI - 45º
Dimensions	mm	-----	-----	-----	-----
Compressor	A	-----	-----	1.87	-----
	W	-----	-----	299	-----
Reference (Electrolux)	-----	-----	-----	ML60TB	-----
Motor Ventilator	A	-----	-----	0.15	-----
	W	-----	-----	35	-----
Fan	A	-----	-----	-----	-----
	W	-----	-----	-----	-----
Illumination	A	0.15	0.07	0.07	0.15
	W	36	18	18	36
Evaporation Resistor	A	-----	-----	0.41	-----
	W	-----	-----	92	-----
Refrigeration Production *	kCal/h	301	155	439	215
	W	350	180	511	250
Nominal Power (max.) W/ Kit	W	-----	-----	444	-----
Nominal Power (max.) WO/ Kit	W	36	18	352	36
Working Temperature	°C	0 - 3	0 - 3	0 - 3	0 - 3
Exposition Surface	m2	0.30	0.15	0.77	0.38
Weight	kg	157	130	200	165
Weight with package	kg	234	190	289	215
Power Source	V~ / Hz	230 / 50	-----	230 / 50	-----
Cooling Gas	-----	-----	-----	R 404 A	-----
Cooling Gas Weight	g	-----	-----	700	-----
Climate Class (EN 441)	-----	-----	-----	3M1	-----

* For an evap.Temp. = -10 ºC and a Cond.Temp. = + 45 ºC
Envi.Temp. = 25 ºC and R.H. = 60 %

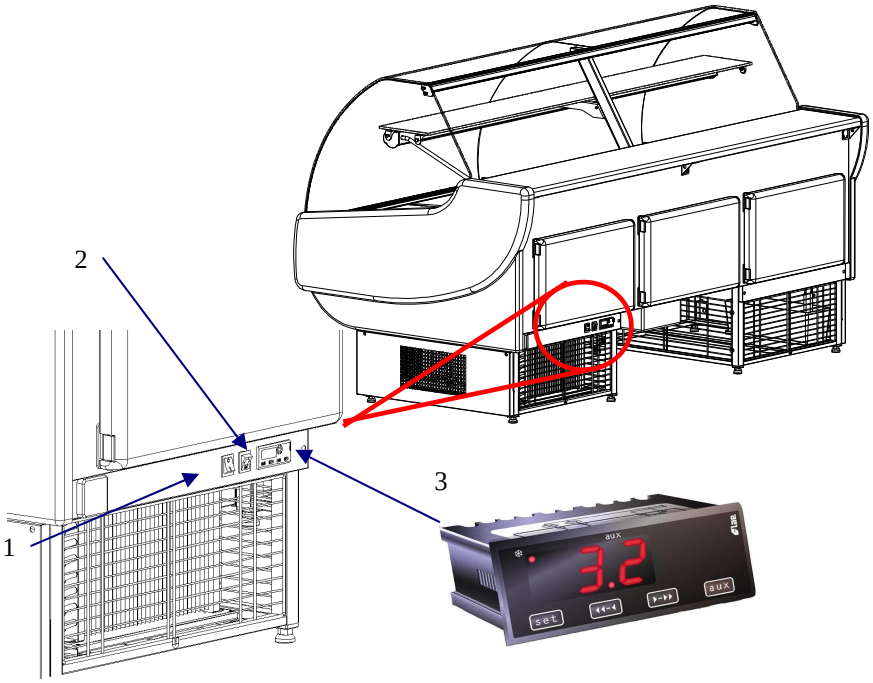
7 -Main Cold System Parts

Model	Dimension	Compressor	Condenser	Motor ventilator
Super Lider II Refrigerated	70	ML 60 TB / FR6DL	AC 4	N10
	105	ML 60 TB / FR6DL	AC 4	N10
	150	ML 80 TB / SC 10 MLX	AC7	N10
	200	MP 12 TB / SC 12 MLX	HL 200	N10
	250	MP 14 TB / SC 15 MLX	P 300	N16
	290	MX 18 TB / SC 18 MLX	P 300	N16
Lower Corner 90 Refrigerated	--	ML 80 TB / SC 10 MLX	HL 200	N10
Lower Corner 45 Refrigerated	--	ML 60 TB / FR6DL	HL 150	N10

8 -Control Panel

On the lower part of the appliance, there is the control panel. Do never remove it; there is a risk of seriously damaging the appliance.

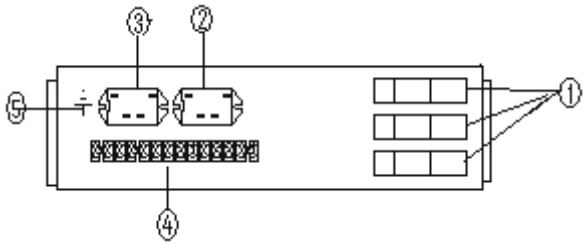
1 – General Switch with indicator 0/1 (turn the appliance on or off)
2 – Illumination switch
3 – Digital Control Unit LAE LDU 15



9 -Electrical board

(may vary depending on the model)

9.1 -Refrigerated

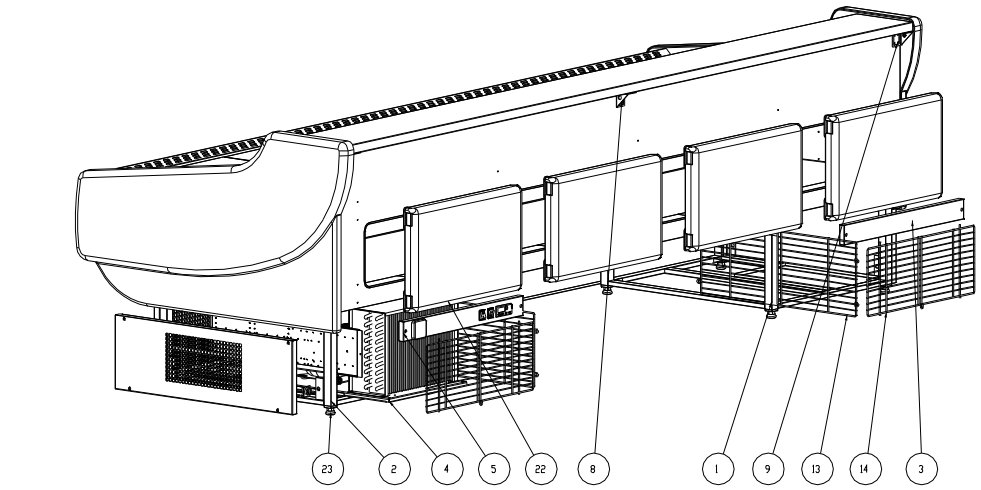


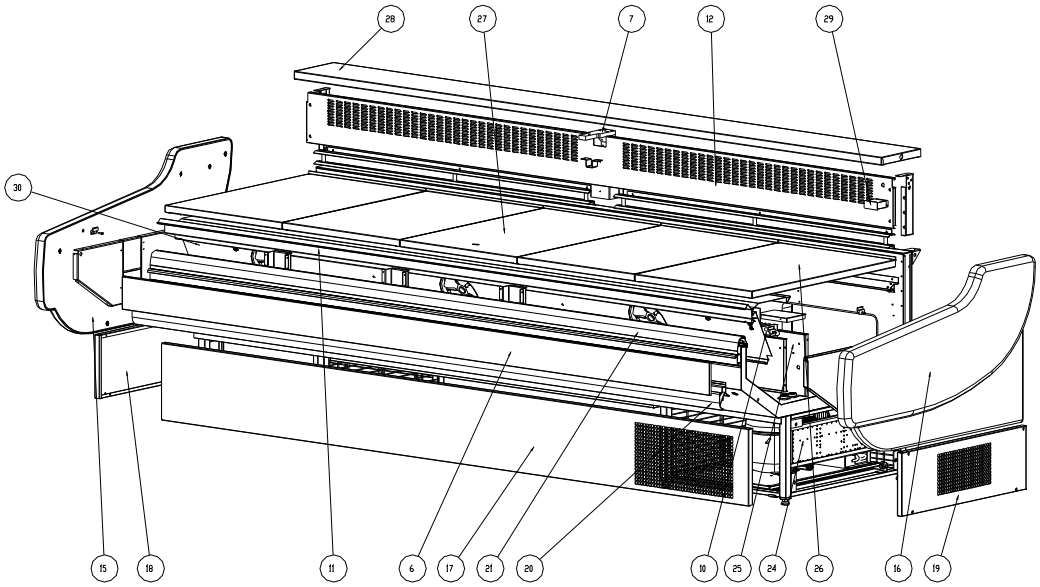
1 Ballasts
2 Compressor Relay (versions with compressor group)
3 Evaporation Kit Relay (versions with evaporation kit)
4 Connecting Blocks
5 Ground

Key

10 -Main Replaceable Parts

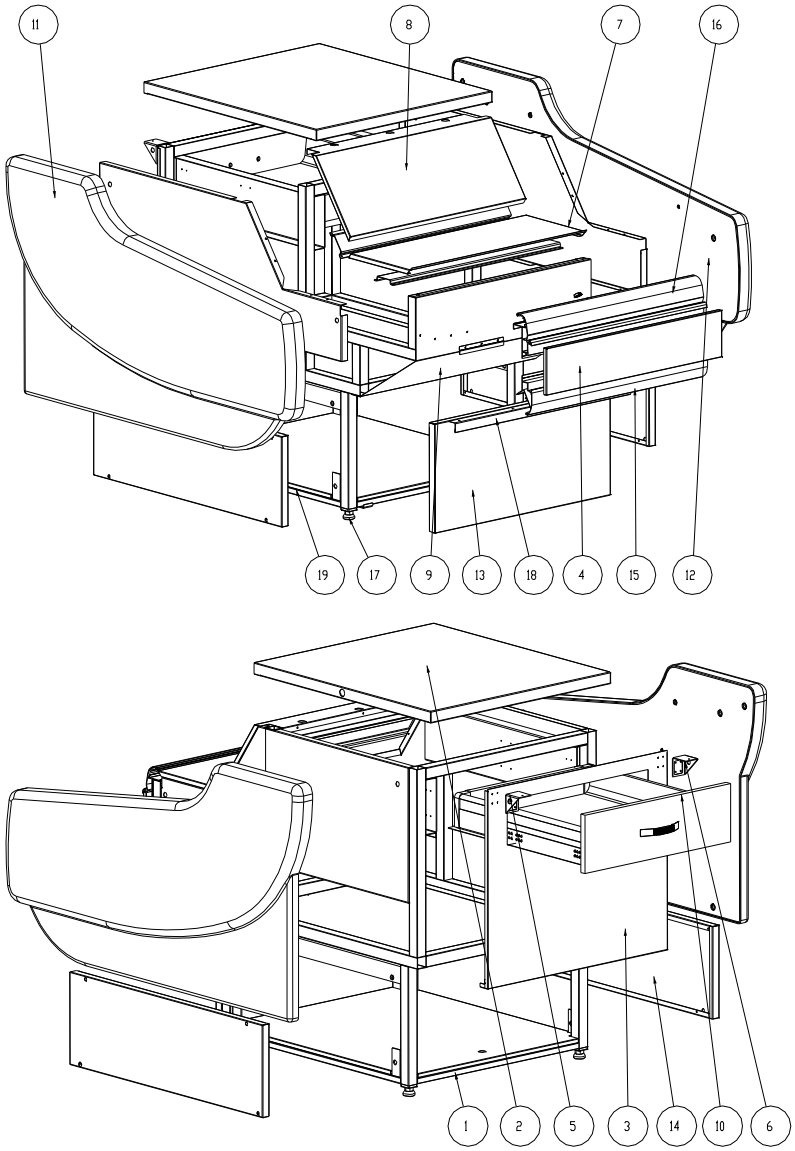
10.1 -Linear Display Cabinet





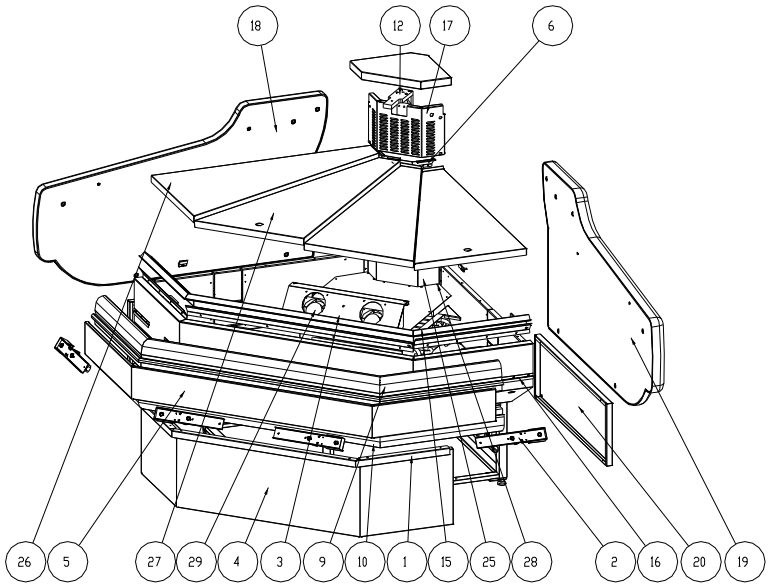
1 Right Base
2 Left Base
3 Control Panel Compensator
4 Compressor Group Kit
5 Control Panel Kit
6 Upper Decoration
7 Central Rectangle Support
8 Front Right Fixing Rectangle Service Cover
9 Front Left Fixing Rectangle Service Cover
10 Evaporator
11 Suction Grid
12 Inflation Grid
13 Side Protection Grid
14 Back Grid Evaporation Kit Protection
15 Right Side Panel
16 Left Side Panel
17 Lower Decoration Panel
18 Right Side Decoration Panel
19 Left Side Decoration Panel
20 Upper Decoration Lower Profile
21 Upper Decoration Upper Profile
22 Door with seal and hinge
23 Levelling foot
24 Electrical Board
25 Chamber / Evaporator Separator
26 Exposition Tray wo/hole
27 Exposition Tray w/hole
28 Service Cover
29 Digital Thermometer
30 Supports and Fans

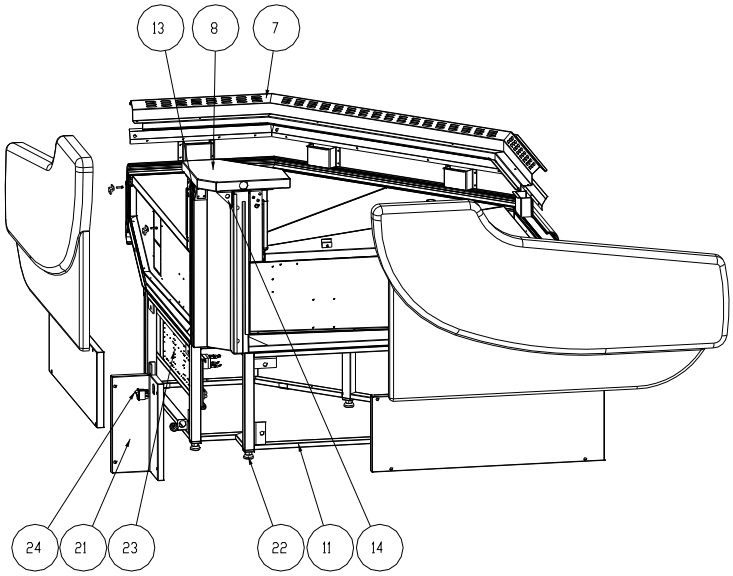
10.2 -Support Case



1 Base
2 Service Cover Kit
3 Outer Backs
4 Upper Decoration
5 Front Right Fixing Rectangle Service Cover
6 Front Left Fixing Rectangle Service Cover
7 Lower front finishing
8 Upper front finishing
9 Outer bottom
10 Drawer
11 Right Panel
12 Left Panel
13 Lower Decoration Panel
14 Right side decoration panel
15 Upper Decoration lower Profile
16 Upper Decoration Upper Profile
17 Levelling Foot
18 Lower Decoration Support w/channel
19 Base Tray

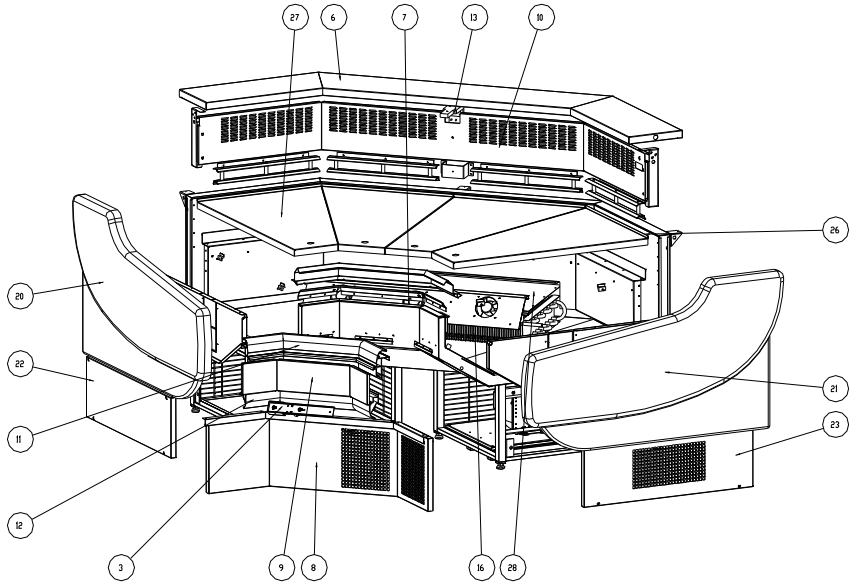
10.3 -Outer Corners

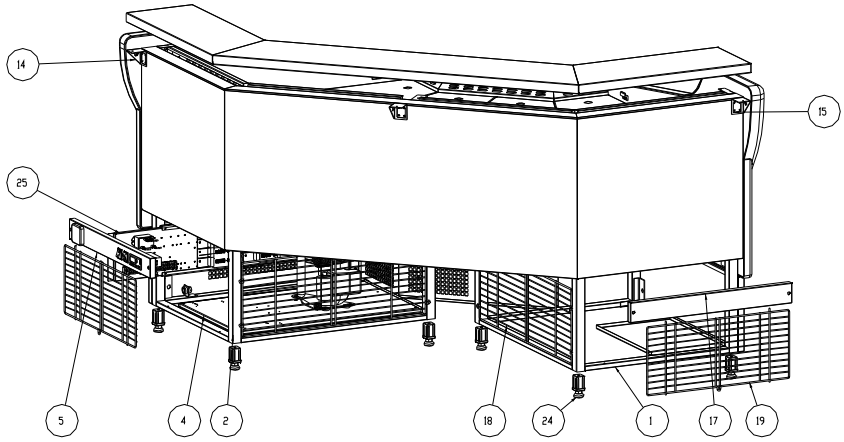




1 Lower Decorations Upper Support Channel
2 Decoration Lightning Array Kit
3 Fan Covers Kit
4 Lower Decoration
5 Upper Decoration
6 Upper Deflector
7 Suction grid
8 Service Cover
9 Upper Profile Kit
10 Lower Profile Kit
11 Base Kit
12 Central Support Rectangle
13 Front Right Fixing Rectangle Service Cover
14 Front Left Fixing Rectangle Service Cover
15 Evaporator
16 Lower Profile Upper Fixing
17 Inflation Grid
18 Right Side Panel
19 Left Side Panel
20 Right Side Decoration Panel
21 Control Panel
22 Levelling Foot
23 Electrical Circuit Board
24 Indicator
25 Trays' Back Support
26 Right Exposition Tray
27 Left Exposition Tray
28 Evaporator Cover
29 Fan

10.4 -Inner Corners

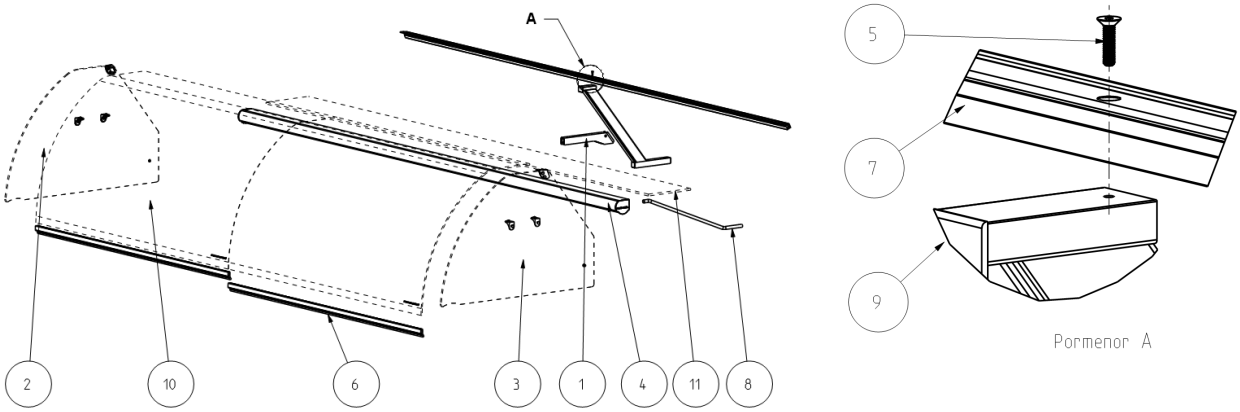




1	Drain Side Base	15	Front Left Fixing Rectangle Service Cover
2	Electrical Board Side Base	16	Evaporator
3	Decoration Lightning Array Kit	17	Evaporation Kit Protection Grid Fixing
4	Compressor Group Kit	18	Side protection grid
5	Control Panel Kit	19	Evaporation Kit Back Grid Protection
6	Cover Kit	20	Right Panel
7	Fan Kit	21	Left Panel
8	Lower Decoration	22	Right Side Decoration Panel
9	Upper Decoration	23	Left Side Decoration Panel
10	Grid	24	Levelling Foot
11	Upper Front Profile Kit	25	Electrical Circuit Board
12	Lower Front Profile Kit	26	Right Exposition Tray
13	Support Central Rectangle	27	Left Exposition Tray
14	Front Right Fixing Rectangle Service Cover	28	Evaporator Cover

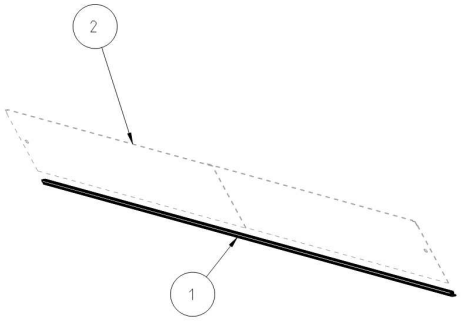
10.5 -Glasses – Linear Display Cabinets

10.5.1 -Glass Kit



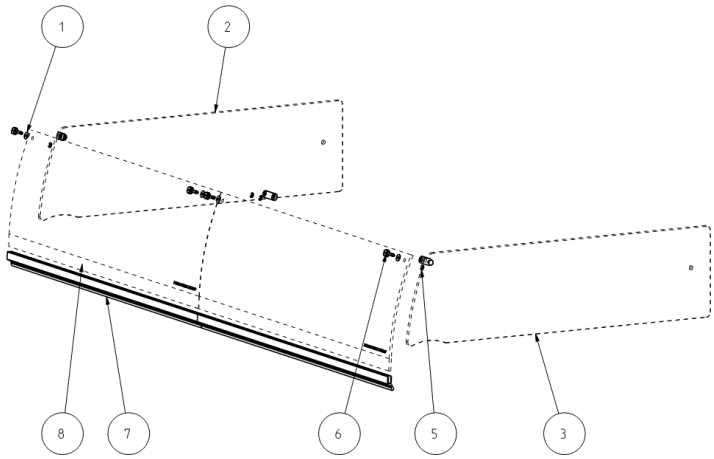
1 Shelf Support
2 Right Side Glass Kit
3 Left Side Glass Kit
4 Lightning Array
5 Screw Umbrako
6 Front Glass Support Profile
7 Acrylics Upper Support Profile
8 Upper Lightning Array Feeding Wire Protection
9 Glass Central Support
10 Curved Front Glass
11 Lower Shelf Glass

10.5.2 -Acrylic Kit



1 Acrylic Lower Support Profile
2 Acrylic Sliding Door

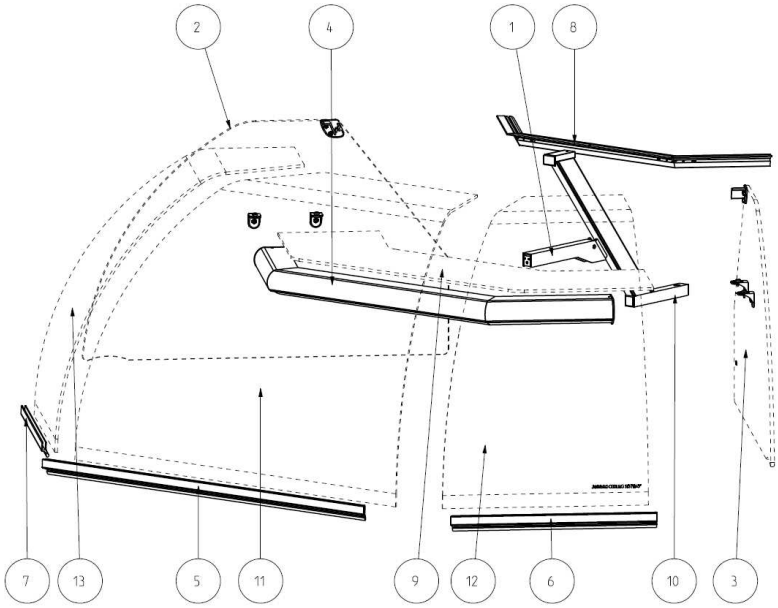
10.5.3 -Self Glasses Kit



1 Front Glass Fixing Ring
2 Right Side Self Glass
3 Left Side Self Glass
4 Front Glass Central Fixing
5 Front Glass Fixing Brake
6 Front Glass Fixing Screw
7 Front Glass Support Profile
8 Self Glass

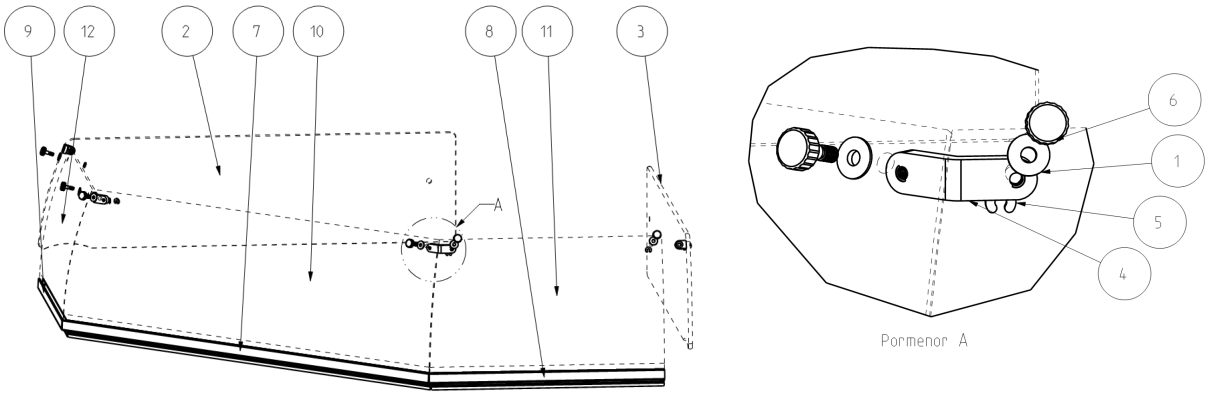
10.6 -Glasses – Outer Corner

10.6.1 -Glasses Kit for Outer Corner



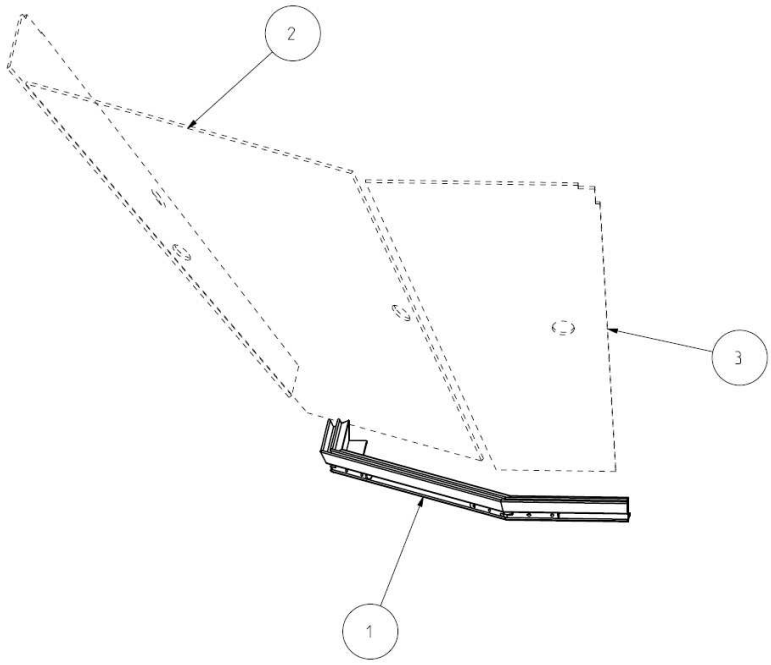
1 Shelf Support
2 Right Side Glass Kit
3 Left Side Glass Kit
4 Lower Lightning Array
5 Central Glass Support Profile
6 Front Glass Support Profile
7 Front Glass Support Profile
8 Acrylic Upper Support Profile
9 Shelf
10 Glass Central Support
11 Curved Central Front Glass
12 Right Curved Front Glass
13 Left Curved Front Glass

10.6.2 -Self Glasses Kit for Outer Corner



1 Front Glass Fixing Ring
2 Right Side Self Glass
3 Left Side Self Glass
4 Corner Front Glass Central Fixing
5 Front Glass Fixing Brake
6 Front Glass Fixing Screw
7 Central Glass Support Profile
8 Front Glass Support Profile
9 Front Glass Support Profile
10 Central Front Self Glass
11 Right Front Self Glass
12 Left Front Self Glass

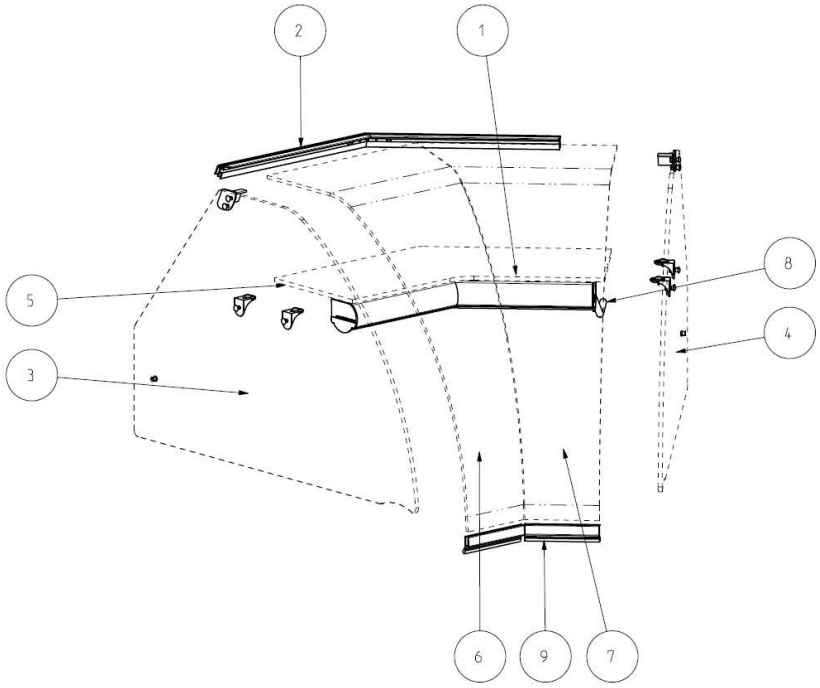
10.6.3 -Acrylics Kit for Outer Corners



1 Acrylic Lower Support Profil
2 Acrylic Central Door
3 Acrylic Side Door

10.7 -Glasses – Lower Corner

10.7.1 -Glasses Kit for Inner Corner

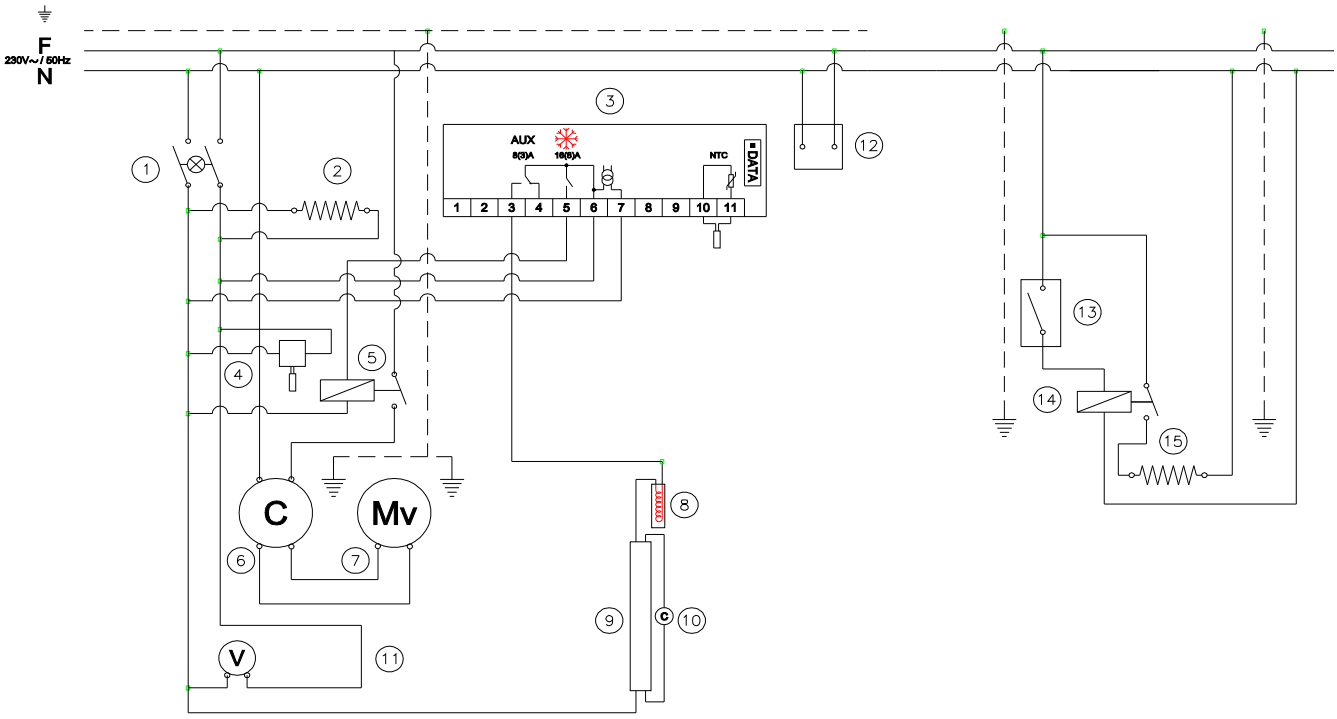


1 Lower Lightning Array
2 Acrylic Support Aluminium Kit
3 Right Side Glass Kit
4 Left Side Glass Kit
5 Shelf
6 Right Curved Front Glass
7 Left Curved Front Glass
8 Upper Lightning Array Feeding Protection Wire
9 Front Glass Support Side Profile

11 -Attachments

11.1 -Electrical Wiring Diagram

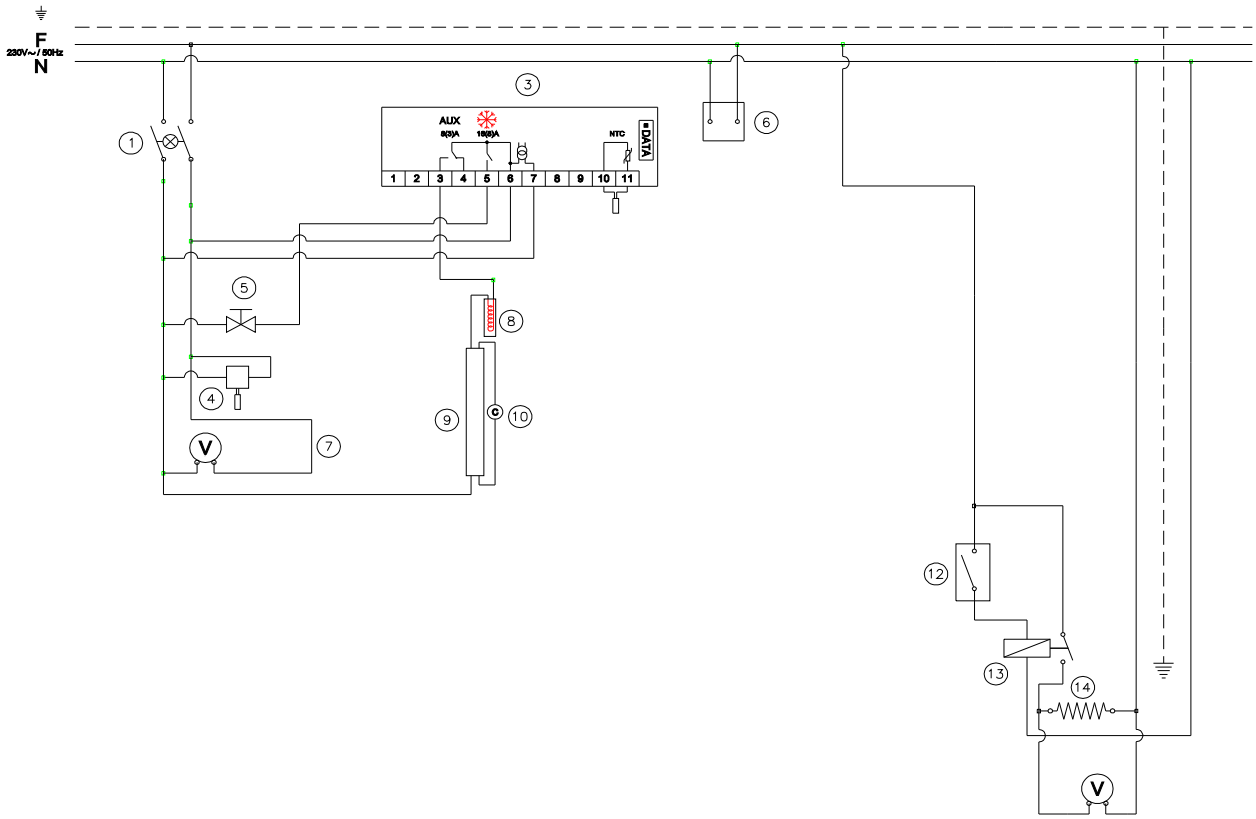
11.1.1 -Build In Refrigerated



Key:

1	General Switch with indicator
2	Anti Condensing Resistor
3	Digital Control Unit
4	Thermometer
5	Compressor Relay
6	Compressor
7	Compressor Fan
8	Ballast
9	Lamp
10	Starter
11	Fan
12	Socket
13	Level Detector
14	Relay
15	Evaporation Kit Resistor

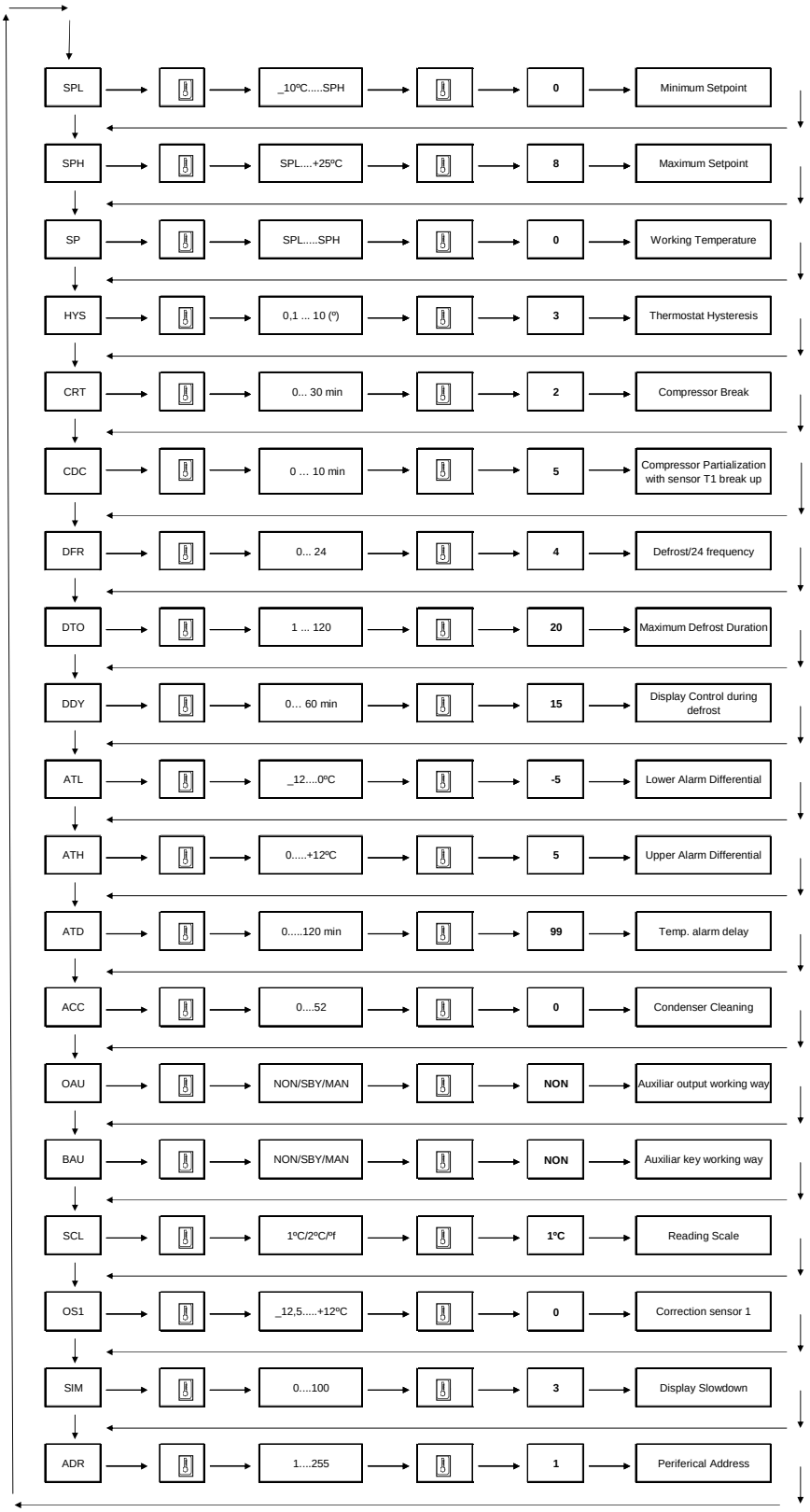
11.1.2 -Remote Refrigerated



1	General Switch with indicator
2	-
3	Digital Control Unit
4	Thermometer
5	Solenoid Valve
6	Socket
7	Fan
8	Ballast
9	Lamp
10	Starter
11	Section with Fuse
12	Level Sensor
13	Evaporation Resistor Relay
14	Relay
15	Condensed water evaporation resistor

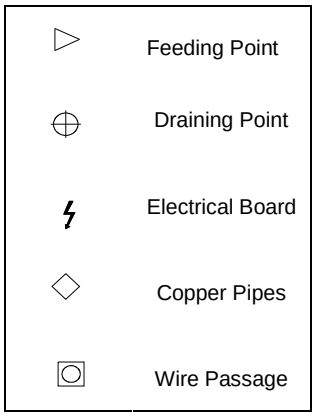
11.2 -Programming the Thermostat

11.2.1 -Remote or Build In Unit – Display Cabinets or Corners

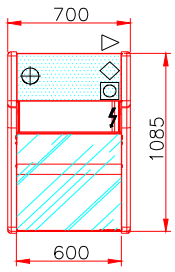
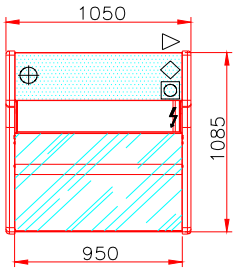
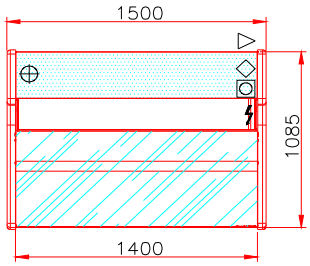


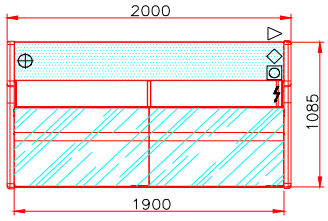
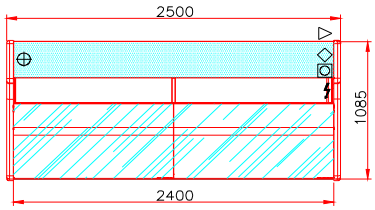
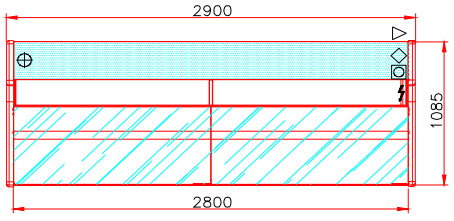
11.3 -Condensed Water Draining and Electrical Connection Points

11.3.1 -Symbology

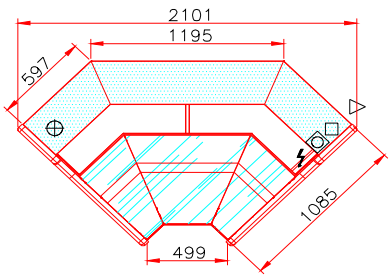
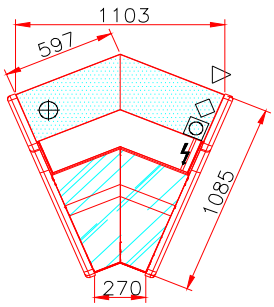


11.3.2 -Linears

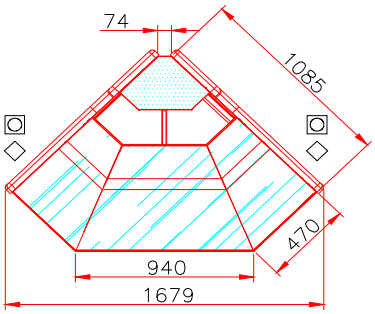
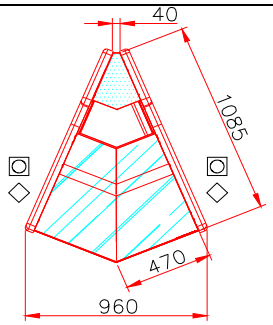
		
Fan Assisted Refrigerated with remote or built in unit 70	Fan Assisted Refrigerated / Refrigerated Cover with remote or built in unit 105	Fan Assisted Refrigerated / Refrigerated Cover with remote or built in unit 150

		
Fan Assisted Refrigerated with remote or built in unit 200	Fan Assisted Refrigerated / Refrigerated Cover with remote or built in unit 250	Fan Assisted Refrigerated with remote or built in unit 290

11.3.3 -Inner Corners

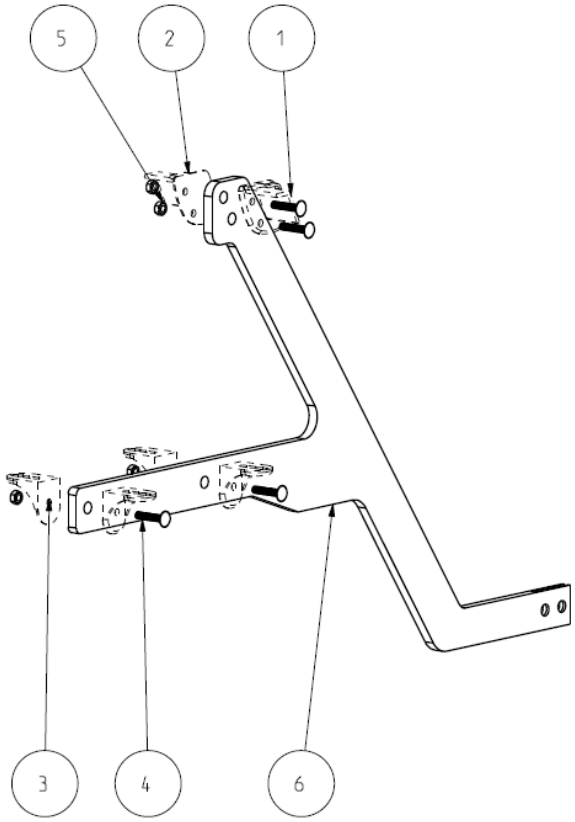
	
Corner 90º Built in or Remote Unit	Corner 45º Built in or Remote Unit

11.3.4 -Outer Corners

	
Corner 90º Remote Unit	Corner 45º Remote Unit

11.4 -Couplings

11.4.1 -Two Display Cabinets Coupling Kit/Corners without Coupling Glass



1 – Glass Compensator Right Upper Corner

2 – Glass Compensator Left Upper Corner + Glass Compensator Right Upper Corner

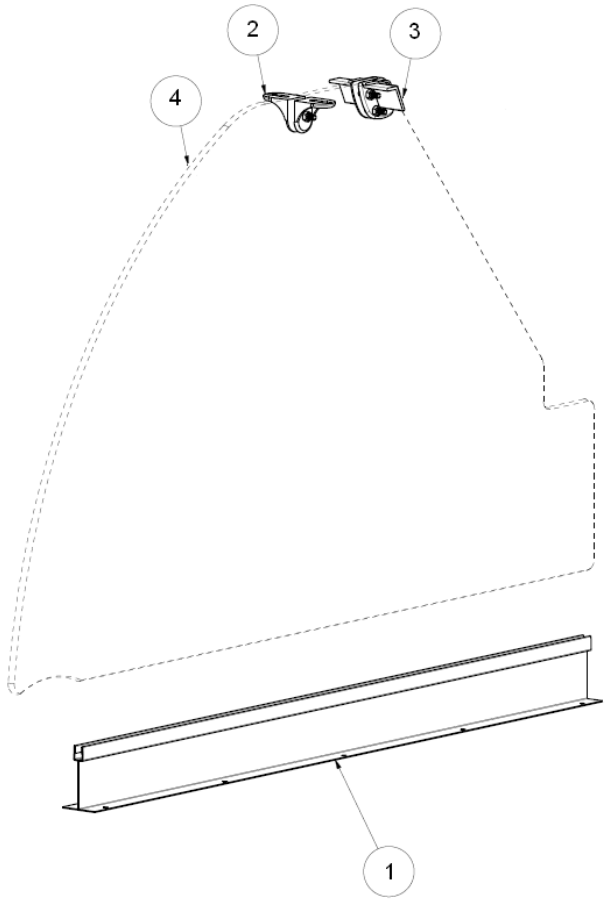
3 – Glass Shelf Support Angle

4 – Shelf Support Screw

5 – Hexagonal Screw nut

6 – Coupling Support

11.4.2 -Two Display Cabinets Coupling Kit/Corners without Shelf



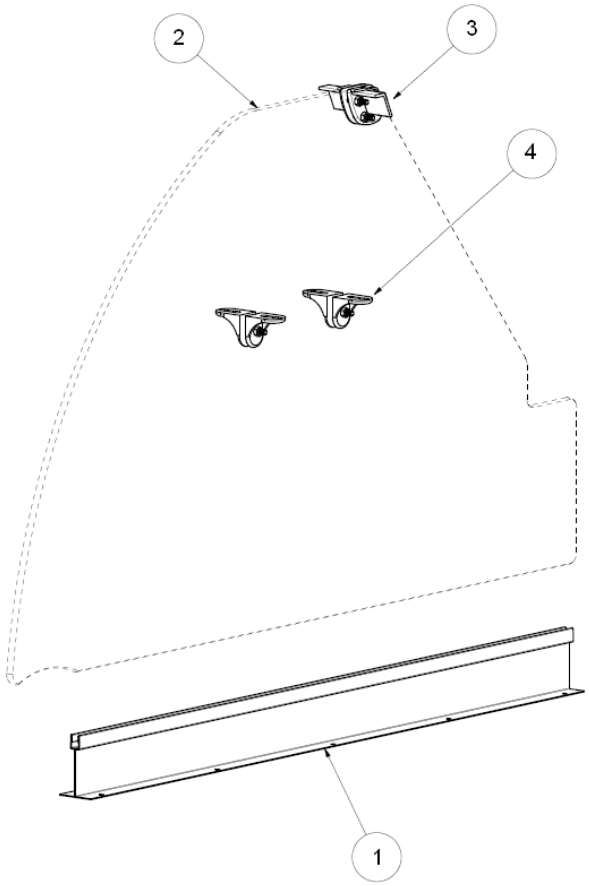
1 – Glass Channel Kit

2 – Glass Shelf Support Angle

3 – Glass Compensator Left Upper Corner + Glass Compensator Right Upper Corner

4 – Side Glass

11.4.3 -Two Display Cabinets Coupling Kit/Corners with Shelf



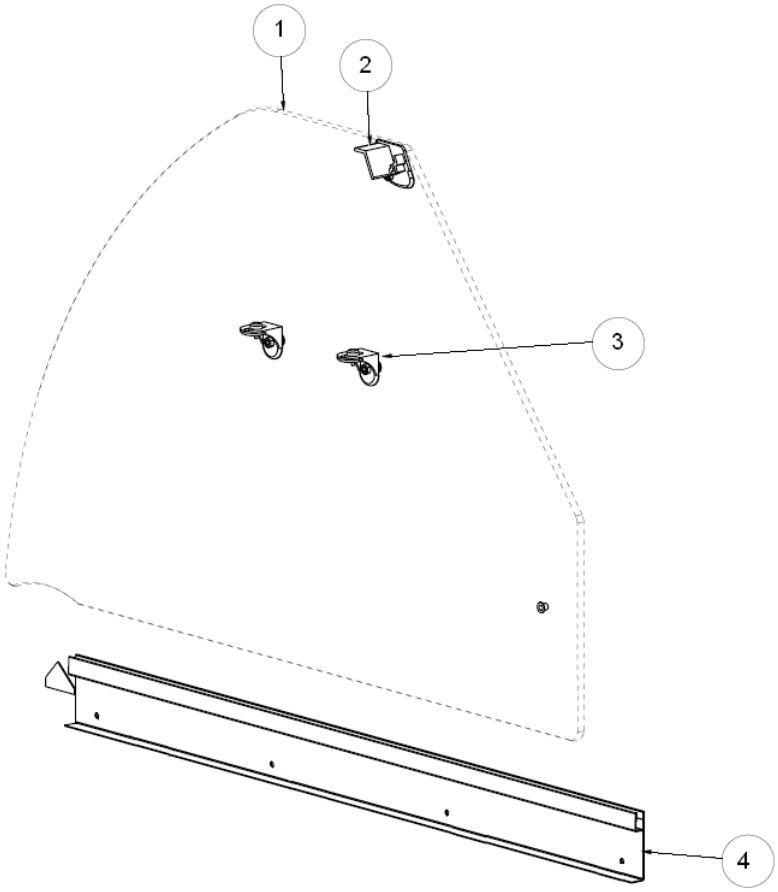
1 – Glass Channel Kit

2 – Side Glass

3 – Glass Compensator Left Upper Corner + Glass Compensator Right Upper Corner

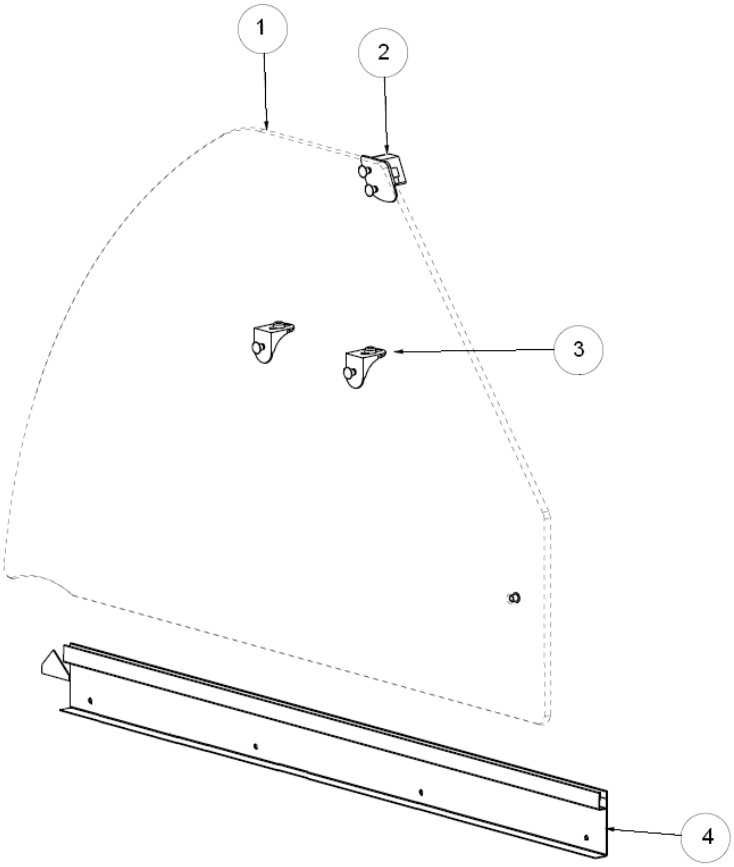
4 – Glass Shelf Support Angle

11.4.4 -Right Coupling Display Cabinet Kit / Corner with Support Case



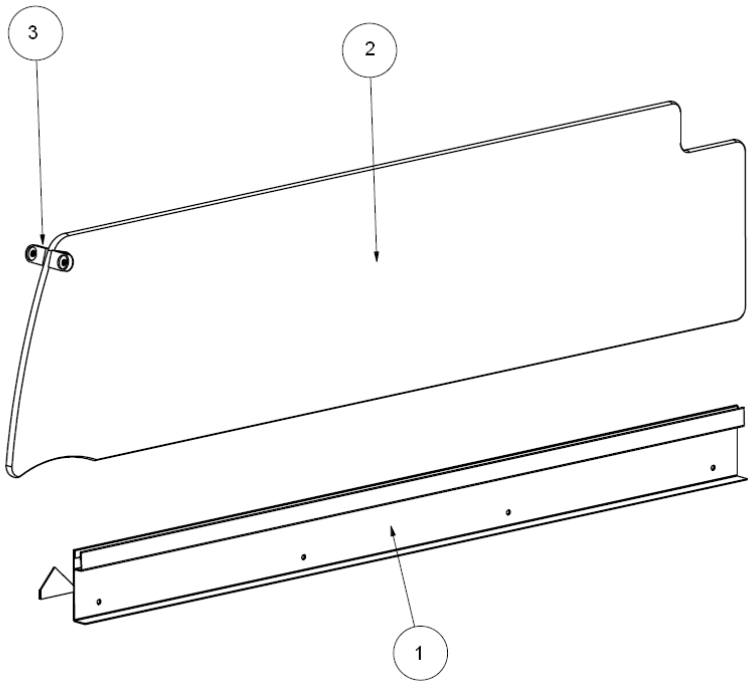
1 – Side Glass
2 – Glass Compensator Right Upper Corner
3 – Glass Shelf Support Angle
4 – Glass Channel Kit

11.4.5 -Left Coupling Display Cabinet Kit / Corner with Support Case



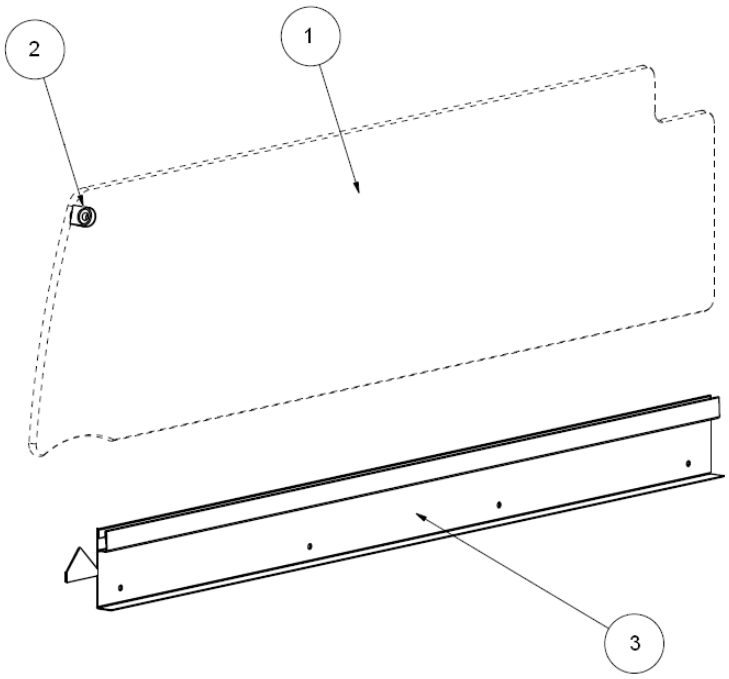
1 – Side Glass
2 – Glass Compensator Left Upper Corner
3 – Glass Shelf Support Angle
4 – Glass Channel Kit

11.4.6 -Self Coupling Kit



1 – Glass Channel Kit
2 – Side Glass
3 – Front Glass Coupling Fixing Spangle

11.4.7 -Self Coupling Kit with Support Case



1 – Side Glass
2 – Front Glass Fixing Spangle
3 – Glass Channel Kit

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