CHEST & DISPLAY FREEZERS

instruction manual

JUKA®

CHEST & DISPLAY FREEZERS INSTRUCTION MANUAL

Dear customers! Please read this manual thoroughly before operating the equipment!
Following our instructions, you will ensure long and effective performance of the equipment.

CONTENT

Dear customers! If you purchased our equipment on R290 refrigerant, please read carefully the instruction manual of the freezer.

Special precautionary instruction for equipment with refrigerant R290.

Fluorinated greenhouse gases are in a hermetically sealed system. Any kind of works connected with refrigeration or electric systems shall be carried out by authorized service. There is no warranty responsibility for the repair by unauthorized persons.

- This equipment contains flammable and explosive refrigerant propane R290!
- Be sure to maintain a minimum distance of 10 cm from the walls of the equipment to the walls and surrounding objects. Make sure to provide proper air circulation for the equipment with combustible refrigerant!
- Do not close air inlets on the body frame of the equipment.
- Disconnect equipment from voltage before any maintenance operation.
- Any kind of works connected with refrigeration or electric systems shall be carried out by authorized service and personnel
- It is allowed to open refrigerant circulation circuit and pump it down only in well-ventilated areas or outside. Make sure that there are no people or animals around.
- Correct disposal of refrigerant propane R290 is a must!

PRECAUTIONS

- Make sure not to damage the refrigerant circulation circuit!
- Do not use mechanical or other means to accelerate defrosting process other than those authorized by the manufacturer.
- It is prohibited to put heating appliances inside the freezer.

The manufacturer reserves the right to modify product design for its performance improvement without prior notification of the customer. Product images are for illustrative purposes only and may differ from the actual product.

1. GENERAL INFORMATION

JUKA chest & display freezers belong to professional freezing equipment and are designed for presentation, sales, and storage of refrigerated or frozen foodstuff in stores, supermarkets, pastries, cafes, and other catering establishments. chest & display freezers preserve the quality, safety, and taste of food.

JUKA chest & display freezers are manufactured following the latest technologies and comply with such standards as IEC 60335-2-89, IEC 60335-1, IEC 61000-6-3, IEC 61000-6-1.

Fluorinated greenhouse gases are in a hermetically sealed system.

Equipment can be filled with refrigerant R290 (GWP 3), R404a (GWP 3922) or R452a (GWP 2140). Molecular formula of refrigerant R290 - C3H8. Molecular formula of refrigerant R404a - CHF2CF3. Molecular formula of refrigerant R452a - CHF2CF3+CH2F2+C3H2F4.

2. TECHNICAL CHARACTERISTICS

Dimensions	Unit.	M100V				M200V				N100V	N200V
Dimensions: Height	mm	929				929				929	929
Width		596				806				596	806
Depth		661				661				661	661
Gross Volume	dm^3	158				240				158	240
Net Volume		107				170				107	170
Net weight	kg	44				50				44	50
Refrigerant type	-	R452a	R404a	R290	R290*	R452a	R404a	R290	R290*	R290	R290
Refrigerant quantity	kg	0,12	0,12	0,06	0,06	0,14	0,14	0,070	0,070	0,08	0,085
CO2 EQ	t	0,26	0,47	0,00	0,00	0,30	0,55	0,00	0,00	0,00	0,00
Current consumption	A	1,2	1,2	1,0	0,6	1,2	1,2	1,1	0,6	0,8	0,8
Electric power consumption (at 25 ^{0}C)	kW\24h	1,8	1,8	1,1	1,05	1,95	1,95	1,6	1,3	1,05	1,1
Climate class		7								7	
Ambient temperature range	^{0}C	+16 ÷ +35								+16 ÷ +35	
Operating temperature range	^{0}C	−14 ÷ −23								−5 ÷ +5	
Voltage / frequency	V/Hz	220-240/50								220-240/50	
Temperature gauge	-	electromechanical								electronic controller	
Basic delivery set: baskets	pcs.	2				3				2	3
castors		4				4				4	4
lock		–				-				-	-
Max. load per 1 basket	kg	10				10				10	10

* - energy efficient model

Dimensions	Unit.	M200P				M300P				M400P			
Dimensions: Height	mm	924				924				924			
Width		806				1016				1216			
Depth		661				661				661			
Gross Volume	dm^3	253				342				426			
Net Volume		210				286				358			
Net weight	kg	52				63				73			
Refrigerant type	-	R452a	R404a	R290	R290*	R452a	R404a	R290	R290*	R452a	R404a	R290	R290*
Refrigerant quantity	kg	0,14	0,14	0,070	0,070	0,15	0,15	0,070	0,070	0,16	0,16	0,075	0,075
CO2 EQ	t	0,30	0,55	0,00	0,00	0,32	0,59	0,00	0,00	0,34	0,63	0,00	0,00
Current consumption	A	1,2	1,2	1,1	0,6	1,5	1,5	1,3	0,6	1,6	1,6	1,5	0,8
Electric power consumption (at 25 ^{0}C)	kW\24h	1,9	1,9	1,7	1,1	2,5	2,5	2,1	1,45	3,1	3,1	2,6	1,85
Climate class		7											
Ambient temperature range	^{0}C	+16 ÷ +35											
Operating temperature range	^{0}C	−14 ÷ −23											
Voltage / frequency	V/Hz	220-240/50											
Temperature gauge	-	electromechanical											
Basic delivery set: baskets	pcs.	3				4				5			
castors		4				4				4			
lock		+				+				+			
Max. load per 1 basket	kg	10				10				10			

* - energy efficient model

Dimensions	Unit.	M500P				M600P				M400G			M300S+ (-35)		M300SH (-35)	
Dimensions: Height	mm	924				924				951			940		928	
Width		1436				1656				1216			1016		1016	
Depth		661				661				735			661		721	
Gross Volume	dm^3	518				611				420			333		340	
Net Volume		437				515				318			252		254	
Net weight	kg	81				89				75			54		58	
Refrigerant type	-	R452a	R404a	R290	R290*	R452a	R404a	R290	R290*	R452a	R404a	R290	R452a	R404a	R452a	R404a
Refrigerant quantity	kg	0,22	0,22	0,075	0,075	0,2	0,2	0,08	0,08	0,16	0,16	0,075	0,140	0,140	0,140	0,140
CO2 EQ	t	0,47	0,86	0,00	0,00	0,43	0,78	0,00	0,00	0,34	0,63	0,00	0,30	0,55	0,30	0,55
Current consumption	A	1,8	1,8	1,6	0,9	2,0	2,0	1,7	1,0	1,6	1,6	1,5	2,8	2,8	2,8	2,8
Electric power consumption (at 25 ^{0}C)	kW\24h	4,0	4,0	3,3	2,55	4,3	4,3	3,8	2,8	3,1	3,1	2,6	5,6	5,6	5,5	5,5
Climate class		7											3		3	
Ambient temperature range	^{0}C	+16 ÷ +35											+16 ÷ +25		+16 ÷ +25	
Operating temperature range	^{0}C	−14 ÷ −23											−23 ÷ −35		−23 ÷ −35	
Voltage / frequency	V/Hz	220-240/50														
Temperature gauge	-	electromechanical											electronic controller		electronic controller	
Basic delivery set: baskets	pcs.	6				7				5			4		4	
castors		4				5				4			4		4	
lock		+				+				-			1		1	
Max. load per 1 basket	kg	10				10				10			10		10	

* - energy efficient model

Dimensions	Unit.	M200S				M300S				M400S				M500S				M600S			
Dimensions: Height	mm	940				940				940				940				940			
Width		806				1016				1216				1436				1656			
Depth		661				661				661				661				661			
Gross Volume	dm^3	247				333				416				506				597			
Net Volume		185				252				316				387				458			
Net weight	kg	51				54				60				72				82			
Refrigerant type	-	R452a	R404a	R290	R290*	R452a	R404a	R290	R290*	R452a	R404a	R452a	R404a	R290	R290*	R452a	R404a	R290	R290*	R452a	R404a	R290	R290*
Refrigerant quantity	kg	0,14	0,14	0,070	0,070	0,15	0,15	0,070	0,070	0,140	0,140	0,16	0,16	0,075	0,075	0,22	0,22	0,075	0,075	0,2	0,2	0,08	0,08
CO2 EQ	t	0,30	0,55	0,00	0,00	0,32	0,59	0,00	0,00	0,30	0,55	0,34	0,63	0,00	0,00	0,47	0,86	0,00	0,00	0,43	0,78	0,00	0,00
Current consumption	A	1,2	1,2	1,1	0,6	1,5	1,5	1,3	0,6	2,8	2,8	1,6	1,6	1,5	0,8	2,0	2,0	1,6	0,9	2,0	2,0	1,7	1,0
Electric power consumption (at 25 ^{0}C)	kW\24h	1,9	1,9	1,7	1,2	2,5	2,5	2,1	1,54	5,6	5,6	3,1	3,1	2,6	1,95	4,0	4,0	3,3	2,65	4,3	4,3	3,8	2,9
Climate class		7								3		7											
Ambient temperature range	^{0}C	+16 ÷ +35								+16 ÷ +25		+16 ÷ +35											
Operating temperature range	^{0}C	−14 ÷ −23								-23 ÷ -35		−14 ÷ −23											
Voltage / frequency	V/Hz	220-240/50																					
Temperature gauge	-	electromechanical																					
Basic delivery set: baskets	pcs.	3				4				5				6				7			
castors		4				4				4				4				5			
lock		+				+				+				+				+			
Max. load per 1 basket	kg	10				10				10				10				10			

* - energy efficient model

Dimensions	Unit.	N200S	N300S	N400S	N500S	N600S
Dimensions: Height	mm	940	940	940	940	940
Width		806	1016	1216	1436	1656
Depth		661	661	661	661	661
Gross Volume	dm^3	247	333	416	506	597
Net Volume		185	252	316	387	458
Net weight	kg	51	54	60	72	82
Refrigerant type	-	R290	R290	R290	R290	R290
Refrigerant quantity	kg	0,085	0,088	0,09	0,11	0,11
CO2 EQ	t	0,00	0,00	0,00	0,00	0,00
Current consumption	A	0,8	0,9	1,1	1,2	1,25
Electric power consumption (at 25 °C)	kW\24h	1,15	1,4	1,7	1,9	2,3
Climate class		7				
Ambient temperature range	°C	+16 ÷ +35				
Operating temperature range	°C	−5 ÷ +5				
Voltage / frequency	V/Hz	220-240/50				
Temperature gauge	-	electronic controller				
Basic delivery set: baskets	pcs.	3	4	5	6	7
castors		4	4	4	4	5
lock		+	+	+	+	+
Max. load per 1 basket	kg	10	10	10	10	10

Dimensions	Unit.	M300SH					M400SH			M200SF			
Dimensions: Height	mm	928					928			916			
Width		1016					1216			808			
Depth		721					721			667			
Gross Volume	dm^3	340					427			238			
Net Volume		254					321			174			
Net weight	kg	58					64			51			
Refrigerant type	-	R452a	R404a	R290	R452a	R404a	R452a	R404a	R290	R452a	R404a	R290	R290*
Refrigerant quantity	kg	0,15	0,15	0,070	0,140	0,140	0,16	0,16	0,075	0,14	0,14	0,070	0,070
CO2 EQ	t	0,32	0,59	0,00	0,30	0,55	0,34	0,63	0,00	0,30	0,55	0,00	0,00
Current consumption	A	1,5	1,5	1,3	2,8	2,8	1,6	1,6	1,5	1,2	1,2	1,1	0,6
Electric power consumption (at 25 ^{0}C)	kW\24h	2,3	2,3	2,0	5,5	5,5	2,9	2,9	2,4	1,9	1,9	1,7	1,2
Climate class		7			3		7						
Ambient temperature range	^{0}C	+16 ÷ +35			+16 ÷ +25		+16 ÷ +35						
Operating temperature range	^{0}C	–14 ÷ –23			–23 ÷ –35		–14 ÷ –23						
Voltage / frequency	V/Hz	220-240/50											
Temperature gauge	-	electromechanical											
Basic delivery set: baskets	pcs.	4					5			3			
castors		4					4			4			
lock		+					+			+			
Max. load per 1 basket	kg	10					10			10			

* - energy efficient model

Dimensions	Unit.	M300SF				M400SF				M500SF				M600SF				M700SF	M800SF
Dimensions: Height	mm	916				916				916				916				916	930
Width		1018				1218				1438				1658				1908	1909
Depth		667				667				667				667				667	812
Gross Volume	dm^3	322				402				490				578				678	855
Net Volume		238				299				366				433				509	603
Net weight	kg	54				61				72				82				93	103
Refrigerant type	-	R452a	R404a	R290	R290*	R452a	R404a	R290	R290*	R452a	R404a	R290	R290*	R452a	R404a	R290	R290*	R290	R290
Refrigerant quantity	kg	0,15	0,15	0,070	0,070	0,16	0,16	0,075	0,075	0,22	0,22	0,075	0,075	0,24	0,24	0,08	0,08	0,085	0,080
CO2 EQ	t	0,32	0,59	0,00	0,00	0,34	0,63	0,00	0,00	0,47	0,86	0,00	0,00	0,51	0,94	0,00	0,00	0,00	0,00
Current consumption	A	1,5	1,5	1,3	0,6	1,6	1,6	1,5	0,8	2,0	2,0	1,6	0,9	2,0	2,0	1,7	1,0	3,9	4,0
Electric power consumption (at 25 ^{0}C)	kW\24h	2,5	2,5	2,1	1,54	3,1	3,1	2,6	1,95	4,0	4,0	3,3	2,65	4,3	4,3	3,8	2,9	4,6	5,9
Climate class		7																	
Ambient temperature range	^{0}C	+16 ÷ +35																	
Operating temperature range	^{0}C	–14 ÷ –23																	
Voltage / frequency	V/Hz	220-240/50																	
Temperature gauge	-	electromechanical																	electronic controller
Basic delivery set: baskets	pcs.	4				5				6				7				8	6
castors		4				4				4				5				5	5
lock		+				+				+				+				+	+
Max. load per 1 basket	kg	10				10				10				10				10	15

* - energy efficient model

Dimensions	Unit.	M100Z	M200Z				M300Z				M400Z				M500Z				M600Z			
Dimensions: Height	mm	910	910				910				910				910				910			
Width		692	806				1016				1216				1436				1656			
Depth		692	740				740				740				740				740			
Gross Volume	dm^3	207	241				326				406				495				584			
Net Volume		193	210				286				358				437				515			
Net weight	kg	48	52				58				65				73				81			
Refrigerant type	-	R290	R452a	R404a	R290	R290*	R452a	R404a	R290	R290*	R452a	R404a	R290	R290*	R452a	R404a	R290	R290*	R452a	R404a	R290	R290*
Refrigerant quantity	kg	0,08	0,14	0,14	0,070	0,070	0,15	0,15	0,070	0,070	0,16	0,16	0,075	0,075	0,22	0,22	0,075	0,075	0,2	0,2	0,08	0,08
CO2 EQ	t	0,00	0,30	0,55	0,00	0,00	0,32	0,59	0,00	0,00	0,34	0,63	0,00	0,00	0,47	0,86	0,00	0,00	0,43	0,78	0,00	0,00
Current consumption	A	1,9	1,1	1,1	1,0	0,5	1,3	1,3	1,2	0,6	1,5	1,5	1,3	0,7	1,7	1,7	1,5	0,9	1,8	1,8	1,7	0,95
Electric power consumption (at 25 ^{0}C)	kW\24h	3,9	1,5	1,5	1,25	1,0	1,8	1,8	1,5	1,0	2,0	2,0	1,7	1,55	2,4	2,4	2,1	2,0	2,8	2,8	2,4	2,2
Climate class		7																				
Ambient temperature range	^{0}C	+16 ÷ +35																				
Operating temperature range	^{0}C	-28 ÷-40	−14 ÷ −23																			
Voltage / frequency	V/Hz	220-240/50																				
Temperature gauge	-	electronic controller	electromechanical																			
Basic delivery set: baskets	pcs.	-	1				1				1				1				1			
castors		4	4				4				4				4				5			
lock		1	+				+				+				+				+			
Max. load per 1 basket	kg	-	10				10				10				10				10			

* - energy efficient model

Dimensions	Unit.	N200Z		N300Z		N400Z		N500Z		N600Z	
Dimensions: Height	mm	910		910		910		910		910	
Width		806		1016		1216		1436		1656	
Depth		740		740		740		740		740	
Gross Volume	dm^3	241		326		406		495		584	
Net Volume		210		286		358		437		515	
Net weight	kg	52		58		65		73		81	
Refrigerant type	-	R290	R290*	R290	R290*	R290	R290*	R290	R290*	R290	R290*
Refrigerant quantity	kg	0,085	0,085	0,088	0,088	0,09	0,09	0,105	0,105	0,11	0,11
CO2 EQ	t	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Current consumption	A	0,8	0,8	0,9	0,9	0,9	0,9	1,1	1,1	1,1	1,1
Electric power consumption (at 25 ^{0}C)	kW\24h	0,8	0,7	0,9	0,8	1	0,9	1,2	1,1	1,3	1,2
Climate class		7									
Ambient temperature range	^{0}C	+16 ÷ +35									
Operating temperature range	^{0}C	–5 ÷ +5									
Voltage / frequency	V/Hz	220-240/50									
Temperature gauge	-	electronic controller									
Basic delivery set: baskets	pcs.	1		1		1		1		1	
castors		4		4		4		4		5	
lock		+		+		+		+		+	
Max. load per 1 basket	kg	10		10		10		10		10	

* - energy efficient model

Dimensions	Unit.	M800Z			M800S			M800D			M800W		
Dimensions: Height	mm	905			970			970			970		
Width		1906			1906			1906			1906		
Depth		890			806			806			806		
Gross Volume	dm^3	786			822			815			822		
Net Volume		698			629			629			629		
Net weight	kg	105			115			115			115		
Refrigerant type	-	R452a	R404a	R290	R452a	R404a	R290	R452a	R404a	R290	R452a	R404a	R290
Refrigerant quantity	kg	0,24	0,24	0,095	0,24	0,24	0,095	0,24	0,24	0,095	0,24	0,24	0,095
CO2 EQ	t	0,51	0,94	0,00	0,51	0,94	0,00	0,51	0,94	0,00	0,51	0,94	0,00
Current consumption	A	2,7	2,7	2,4	3,0	3,0	2,6	3,0	3,0	2,6	3,0	3,0	2,6
Electric power consumption (at 25 ^{0}C)	kW\24h	3,5	3,5	3	4,8	4,8	4,1	4,8	4,8	4,1	4,8	4,8	4,1
Climate class		4											
Ambient temperature range	^{0}C	+16 ÷ +30											
Operating temperature range	^{0}C	−14 ÷ −23											
Voltage / frequency	V/Hz	220-240/50											
Temperature gauge	-	electronic controller											
Basic delivery set: baskets	pcs.	1			6			6			6		
castors		6			5			5			5		
lock		+			+			+			+		
Max. load per 1 basket	kg	13			13			13			13		

* - energy efficient model

Dimensions	Unit.	N800S	N800D	N800W
Dimensions: Height	mm	970	970	970
Width		1906	1906	1906
Depth		806	806	806
Gross Volume	dm^3	822	815	822
Net Volume		629	629	629
Net weight	kg	115	115	115
Refrigerant type	-	R290	R290	R290
Refrigerant quantity	kg	0,125	0,125	0,125
CO2 EQ	t	0,00	0,00	0,00
Current consumption	A	1,3	1,3	1,3
Electric power consumption (at 25 ^{0}C)	kW\24h	3,0	3,0	3,0
Climate class		4		
Ambient temperature range	^{0}C	+16 ÷ +30		
Operating temperature range	^{0}C	–5 ÷ +5		
Voltage / frequency	V/Hz	220-240/50		
Temperature gauge	-	electronic controller		
Basic delivery set: baskets	pcs.	6	6	6
castors		5	5	5
lock		+	+	+
Max. load per 1 basket	kg	13	13	13

Dimensions	Unit.	M1000Z			M1000V			M1000S (two chambers -14...-23)				M1000S (two chambers +5..-5)	M1000S (one chamber -14...-23, another chamber +5..-5)
Dimensions: Height	mm	905			982			1014					
Width		2001			2001			2001					
Depth		1080			1001			1001					
Gross Volume	dm^3	1121			1104			1062					
Net Volume		923			774			764					
Net weight	kg	140			145			140					
Refrigerant type	-	R452a	R404a	R290	R452a	R404a	R290	R452a	R404a	R290	R290*	R290*	R290
Refrigerant quantity	kg	0,33	0,33	0,15	0,33	0,33	0,15	0,16/0,16		0,075/0,075	0,075/0,075	0,09/0,09	0,09/0,075
CO2 EQ	t	0,71	1,29	0,00	0,71	1,29	0,00	0,34/0,34	0,63/0,63	0,00/0,00	0,00/0,00	0,00/0,00	0,00/0,00
Current consumption	A	3,2	3,2	2,9	3,4	3,4	3,0	3,5		3,2	1,7	1,5	2,4
Electric power consumption (at 25 ^{0}C)	kW\24h	4,5	4,5	4,2	6,5	6,5	6,0	7,1		6,7	5,7	3,5	5,3
Climate class		4						7					
Ambient temperature range	^{0}C	+16 ÷ +30						+16 ÷ +35					
Operating temperature range	^{0}C	−14 ÷ −23										+5 ÷ −5	−14 ÷ −23/ +5 ÷ −5
Voltage / frequency	V/Hz	220-240/50											
Temperature gauge	-	electromechanical						electronic controller					
Basic delivery set: baskets	pcs.	2			6			6			6		
castors		6			4			4			4		
lock		+			-			-			-		
Max. load per 1 basket	kg	15			15			15					

* - energy efficient model

Dimensions	Unit.	M100Q			M100Q				M300Q				M400Q			
Dimensions: Height	mm	941			1194				1198				1198			
Width		661			661				1016				1216			
Depth		596			596				721				721			
Gross Volume	dm^3	145			178				361				444			
Net Volume		59			92				178				220			
Net weight	kg	43			54				73				86			
Refrigerant type	-	R452a	R404a	R290	R452a	R404a	R290	R290*	R452a	R404a	R290	R290*	R452a	R404a	R290	R290*
Refrigerant quantity	kg	0,12	0,12	0,06	0,12	0,12	0,065	0,065	0,15	0,15	0,075	0,075	0,16	0,16	0,075	0,075
CO2 EQ	t	0,26	0,47	0,00	0,26	0,47	0,00	0,00	0,32	0,59	0,00	0,00	0,34	0,63	0,00	0,00
Current consumption	A	1,2	1,2	1,0	1,2	1,2	1,0	0,6	1,8	1,8	1,3	0,7	1,8	1,8	1,5	0,8
Electric power consumption (at 25 °C)	kW\24h	2,0	2,0	1,65	2,0	2,0	1,65	1,35	2,75	2,75	2,1	1,78	3,75	3,75	2,85	1,9
Climate class		7														
Ambient temperature range	°C	+16 ÷ +35														
Operating temperature range	°C	−14 ÷ −23														
Voltage / frequency	V/Hz	220-240/50														
Temperature gauge	-	electronic controller														
Basic delivery set: baskets	pcs.	3			3				7				9			
castors		4			4				4				4			
lock		-			-				-				-			

* - energy efficient model

Dimensions	Unit.	M600Q		M12Q	M18Q		
Dimensions: Height	mm	1198		1248	1248		
Width		1656		1162	1666		
Depth		721		906	906		
Gross Volume	dm^3	627		610	844		
Net Volume		310		285	403		
Net weight	kg	114		104	135		
Refrigerant type	-	R290	R290*	R290	R452a	R404a	R290
Refrigerant quantity	kg	0,085	0,085	0,09	0,24	0,24	0,11
CO2 EQ	t	0,00	0,00	0,00	0,51	0,94	0,00
Current consumption	A	1,8	1,1	1,9	2,8	2,8	2,9
Electric power consumption (at 25 ^{0}C)	kW\24h	3,9	3,0	4,1	7,6	7,6	7,0
Climate class		7					
Ambient temperature range	^{0}C	+16 ÷ +35					
Operating temperature range	^{0}C	–14 ÷ –23					
Voltage / frequency	V/Hz	220-240/50					
Temperature gauge	-	electronic controller					
Basic delivery set: baskets	pcs.	12		12	18		
castors		5		4	5		
lock		-		-	-		

* - energy efficient model

Dimensions		Unit.	M200SL				M300SL				M400SL				M600SL			
Dimensions:	Height with superstructure	mm	1319				1319				1319				1319			
	Height without superstructure		940				940				940				940			
	Width		806				1016				1216				1656			
	Depth		661				661				661				661			
Gross Volume		dm^3	247				333				416				597			
Net Volume			185				252				316				458			
Net weight with superstructure		kg	65				70				78				104			
Net weight without superstructure		kg	51				54				60				82			
Refrigerant type		-	R452a	R404a	R290	R290*	R452a	R404a	R290	R290*	R452a	R404a	R290	R290*	R452a	R404a	R290	R290*
Refrigerant quantity		kg	0,14	0,14	0,07	0,07	0,15	0,15	0,07	0,07	0,16	0,16	0,075	0,075	0,20	0,20	0,08	0,08
CO2 EQ		t	0,30	0,55	0,00	0,00	0,32	0,59	0,00	0,00	0,34	0,63	0,00	0,00	0,43	0,78	0,00	0,00
Current consumption		A	1,2	1,2	1,1	0,6	1,5	1,5	1,3	0,6	1,6	1,6	1,5	0,8	2,0	2,0	1,7	1,0
Electric power consumption (at 25 ^{0}C)		kW\24h	1,9	1,9	1,7	1,2	2,5	2,5	2,1	1,54	3,1	3,1	2,6	1,95	4,3	4,3	3,8	2,9
Climate class			7															
Ambient temperature range		^{0}C	+16 ÷ +35															
Operating temperature range		^{0}C	–14 ÷ –23															
Voltage / frequency		V/Hz	220-240/50															
Temperature gauge		-	electromechanical															
Basic delivery set: frame for ice-cream containers		pcs.	4				7				9				12			
castors			4				4				4				5			
lock			+				+				+				+			

* - energy efficient model

3. TRANSPORTATION, INSTALLATION AND STARTUP

3.1. Transportation

It is forbidden to transport the equipment in any position other than vertical. During transportation, the equipment must be properly secured and packed to prevent any movement or impact inside the vehicle, protected from the weather (direct sunlight, rain, snow, etc.).

ATTENTION! It is forbidden to connect chest & display freezers to the power supply within at least 2 hours after it has been transported and installed.

3.2. Storage of the Equipment

Chest & display freezers should be stored vertically. It is forbidden to store and operate units under direct sunlight or influence any other atmospheric phenomena.

3.3. Requirements to the Place of Operation

- the freezer should be installed away from direct sunlight or any other atmosphere phenomena;
- the freezer should be used if humidity level does not exceed 60%, otherwise condensed water will gather on the glass surface, but it will not affect any of the systems;
- The most energy efficient operation mode of the freezer can be reached at ambient temperature from +16ºC up to +25ºC;
- the freezer should be placed on a solid, flat and dry surface at the distance of at least 1 m away from any source of heat;
- it is necessary to ensure air circulation around the display freezer (place the freezer at least 10 cm away from nearest wall).

3.4. Installation

- Unpack the unit, remove the protective film and cardboard;
- Install the unit on a solid clean surface. Chest freezers of Z-Series should be properly levelled by levelling supports (legs).
- The first cleaning of the unit should be done after unpacking and/or its first launching. For cleaning use only warm water (no more than 40°C) with neutral detergents (e.g. dishwashing liquid).

3.5. Connecting Electricity and Startup

- The device should be connected to a separate, properly mounted electrical circuit with a grounding socket.
- The freezer`s plug should be connected directly in a socked (strongly avoid use of extensions cords);
- Electricity voltage should correspond to nominal value, specified on the data plate.

4. OPERATION

4.1. Operation Requirements

1. **REMEMBER!** The freezer is designed not for freezing, but for pre-frozen products storage. The freezer will reach operating mode in two hours, so **DO NOT load** the freezer which has been just plugged in. Wait till the freezer will reach operating mode, otherwise the foodstuffs may be spoiled. Two compartments of freezers M1000V/ M1000Z reach operating mode one by one – firstly, operating mode is reached in a first compartment, and approx. in 1,5 hours – in a second compartment..

Pic. 1

2. The level of foodstuffs loading should not exceed the line marked inside the freezer **(pic.1)**.
3. Only foodstuff can be stored in the chest or display freezer.
4. Do not store beverages in bottles and cans, especially carbonated beverages, in the freezer chamber.
5. It is prohibited to remove accumulated frost with sharp objects.
6. It is prohibited to put heating appliances inside the freezer.
7. To avoid the damage of freezer inside walls which are made of aluminium and to ensure long term storage please store foodstuffs in special hermetically sealed packing: plastic food wrap, special packing for semi-finished products and ice-cream, polypropylene containers and so on. It concerns especially fish and poultry products.

It is important to remember that the temperature inside the freezer depends on:

1. ambient temperature;
2. the loading level of freezer with goods (pic.1);
3. the frequency of the glass lids opening;
4. the thickness of the frost in the freezer.

4.2. Working Sequence of Electromechanical Thermostat – Display freezers Freezers with Glass Lids

On the regulating handle there is a position «0» (the freezer is on) and two positions to preset the intensity of freezing: «min» and «max». When the freezer is switched on the regulating handle shall be set in the position «max» **(pic. 2)**. It will allow to cool the freezer quickly after switching on. The handle of temperature regulator is located on the side wall of the freezer in the hole on ventilation grid.

Pic. 2

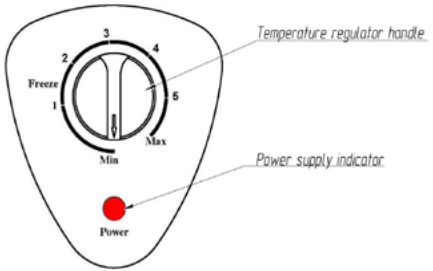
Pic. 3

After one hour of working the temperature inside the freezer should be about -18°C. After that the temperature regulator handle should be turned as shown in **pic 3**.

4.3. Working Sequence of Electromechanical Thermostat – Chest Freezers with Solid Lid

When freezer is switched on, the red switch on control panel (pic. 4) must light up, which means that freezer is connected to voltage. To switch on the freezer the regulating handle shall be set in the position from 1 to «max» **(pic. 4)**.

Setting the handle in the position «max» will allow to cool the freezer quickly after switching on. After two hours of working the temperature inside the freezer should be about -23°C. After that, the temperature regulator handle should be turned to the necessary position.



Pic. 4 temperature regulator

Pic. 5 temperature regulator

Please note that permanent operation in a «max» mode will lead to increased energy consumption.

When the freezer reached operating mode, it is ready to be filled with pre-frozen foodstuff.

To switch off the freezer – turn regulator handle in a «min» position to the click.

Please note that chest freezers M800Z/M1000Z do not have the control panel. Instead, the temperature regulator handle is installed in a front side of the freezer and doesn't have regulation numbers. Direction of handle rotation to change the temperature (pic. 5). Other temperature recommendations are the same.

4.4. Electronic controller «CAREL»

4.4.1. Light signals on the electronic controller`s display:

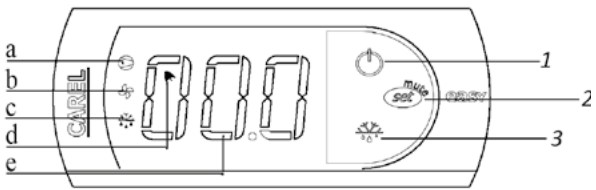
Diode a - ***Compressor*:** The symbol is visible during operation of the compressor. It is blinking when compressor start is delayed by secure procedure.

Diode b – *Fan*: the symbol is visible when the fans are on. It is blinking when the fan start is delayed by an external disengagement or when another procedure is in progress.

Diode c – *Defrosting*: the symbol is visible when the defrosting function is turned on. It is blinking when defrosting start is delayed by external disengagement or when another procedure is in progress.

Diode d – *Alarm*: - the symbol is visible when the alarm is activated. - the temperature inside the equipment is displayed.

Diode e - ***the temperature inside*** the equipment is displayed.



Pic. 6 Electronic controller «CAREL»

4.4.2. Setting of the Temperature

To change the settings of the temperature you have to:

1. Push the button **2** - the screen will show "SET"; hold for 1 second and blinking temperature value will be displayed;
2. Increase or decrease the temperature by pressing buttons **1** or **3**;
3. Push the button **2** again, to set a new temperature.

4.4.3. Additional Defrosting

The device operates in the mode of automatic defrosting in 5-6 hours interval. If you notice an incomplete defrost, then manual defrost must be performed, by pressing button 3 and holding it for 3 seconds (a defrost symbol will appear on the display). The system will automatically finish defrosting of the evaporator and continue its operation**.**

4.4.4. Warning Signals:

„E0" - *malfunction of temperature sensor*

„E1" - *malfunction of defrost sensor*

„cht"- *warning signal indicating that condenser is dirt*

„CHt"- *alarm of a dirty condenser*.

4.5. Electronic controller EVCO

4.5.1. Light Signals on the Electronic Controller`s Display:

Signaling LEDs on the display:

Diode a – *Compressor*: The symbol is visible during operation of the compressor. It is blinking when modification process is ongoing or in case when compressor operation is protected by secure procedure.

Diode b – *Defrosting*: the symbol is visible when the defrosting function is turned on. It is blinking when defrosting start is delayed by external disengagement or when another procedure is in progress.

Pic.7 Electronic controller EVCO

Diode c – *Celsius temperature scale*. The symbol is visible when temperature is set in degrees Celsuis.

Diode d – *Fahrenheit temperature scale*. The symbol is visible when temperature is set in degrees Fahrenheit.

Diode f – *temperature inside* the cabinet**.**

During operation the display of the controller shows the actual temperature inside the equipment.

- **Locking/unlocking of the controller keypad**

The controller keypad is automatically locked in 30 seconds after the last pressure of the button - the **«Loc»** code is displayed for 1 second. To unlock press any button while holding it for 4 seconds - **«UnL»** code will be displayed for 4 seconds.

• **Turning on/off of the equipment**

Ensure that the keypad is not locked, unlock if necessary. To turn the equipment on/off press the button and hold for 4 seconds - the indicator will blink, after this the equipment will be switched on / off.

When voltage is supplied, the red switch must light up (switch is equipped with light diodes, so when the voltage is supplied, it must light up).

4.5.2. Setting of the Temperature

• make sure the keypad is not locked, unlock if necessary
• briefly press the button | SET |, indicator (❄) will start to blink;
• using the buttons | ∧ ❄ | and | ∨ | set the required temperature;
• briefly press the button | SET | to confirm or do nothing within 15 seconds - the indicator (❄) will stop blinking, the controller
• completes the setup process (all changes will be saved).

4.5.3. Warning Signals

„Pr1" - malfunction of temperature sensor
„Pr2" - malfunction of defrost sensor
„COH"- warning signal indicating that condenser is dirt and overheated;
„dFd"- defrosting process is finished.

ATTENTION! Failure to comply with the recommendations regarding connection and operation of the equipment will void the warranty.

4.6. Electronic controller Dixell

4.6.1. Display

1. Defrost; **2.** Compressor operation; **3.** Evaporator fan operation (in some models it signals condenser fan operation) **4.** Temperature display.

The blinking indicator value indicates a program delay.

4.6.2. Checking the temperature being set.

• Press the SET key (8) for a moment, then the set temperature will be shown on the display;
• Press the SET key (8) briefly, or wait 5 seconds to return to the normal display.

4.6.3. Changing the temperature. To change the set values:

• Press the SET key(8) for more than 2 seconds. The set temperature value will be displayed and the «°C» or «°F» indication will blink;
• To change the temperature, press the keys ∨ (5) and ∧ (6) for 10 seconds;
• To confirm the new value, press SET (8) or do not press the keys for 10 seconds

Pic. 8: Dixell electronic controller

4.6.4. Manual defrost request (if provided by the manufacturer).

• Press the key (7), for more than 3 seconds, then the defrost will start, which is signaled by the indication.

4.6.5. The list of warning signals.

dA - open doors alarm: When the door is opened, the controller starts counting down the time, blocking the operation of the air cooler fan. After this time expires, the alarm is started and the «dA», signal is blinking on the display, during which the fan operation is restored. The alarm is reset automatically, when the doors are closed.

P1 - chamber temperature sensor failure; **P2** - evaporator temperature sensor failure;

HA - high temperature in the chamber: indicates too high temperature in the chamber and may indicate equipment malfunction. The alarm turns off automatically, when it returns to normal operation.

LA - low temperature in the chamber: indicates too low temperature in the chamber and may indicate an equipment malfunction. The alarm turns off automatically when returning to normal operation.

4.7. Defrosting

While operating there accumulates frost on the inner surface of freezer and its thick layer results in reduction of the freezer efficiency. The defrosting of the freezer should be performed when the hoar frost layer is 4 mm and more.

Defrosting should be performed as follows:

1) Turn off the freezer.

2) Remove all loaded foodstuffs into some other freezing appliance for temporary storage.

3) Open the glass cover to reduce defrosting time.

4) Thawed water is removed through the hole with a plug, which is on the front wall of the freezer

Remove the plug until it stops **(pic.11)** and turn it downwards so that the arrow on the plug shows down **(pic.9)** - after defrosting and cleaning of the freezer the plug should be placed back into its primary position, push it so that the arrow shows upwards **(pic.10)**

5) Plug in the freezer and set the regulating handle into «max» position.

6) After defrosting of the freezer set temperature regulator in accordance with **pic.2.**

Pic. 9

Pic. 10

Pic. 11

5. MAINTENANCE

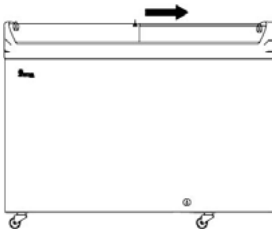
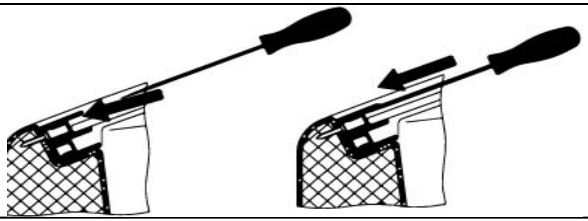
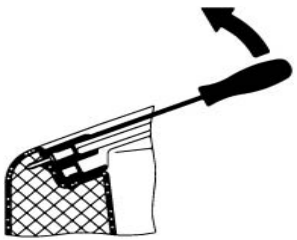
To ensure proper operation of the unit, please clean the compressor from dust and other dirt using soft brush and/or vacuum cleaner. Cleaning should be performed at least once a year

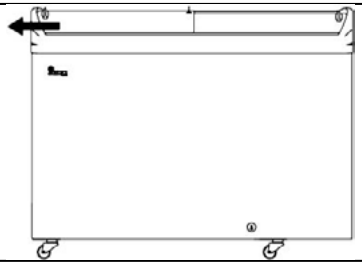
All maintenance services should be carried out after the device is disconnected from the voltage! Make sure not to damage the temperature controller and other electric parts during the cleaning and maintenance of the unit.

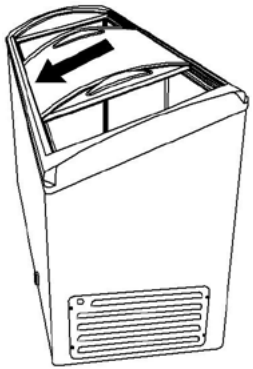
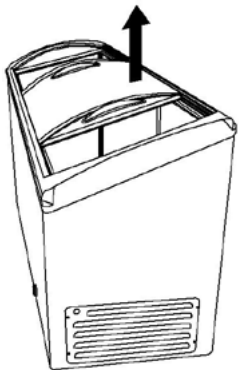
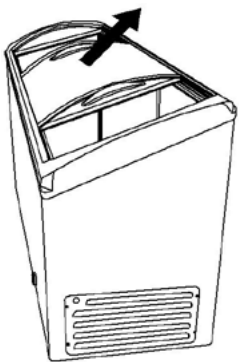
6. GLASS REPLACEMENT AND INSTALLATION OF GLASS SUPERSTRUCTURE

6.1. Glass Replacement for Models M/N200-600P, M/N200-600S, M/N300-400SH, M/N800 S/W/D

To replace the glass lids from the freezer it is necessary:

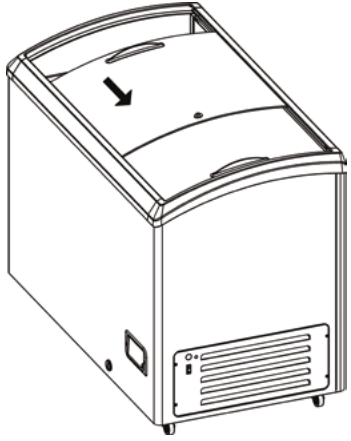
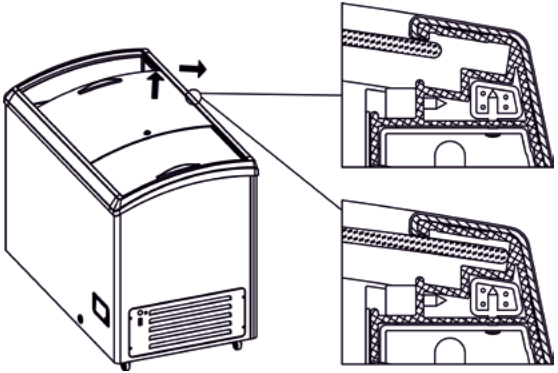
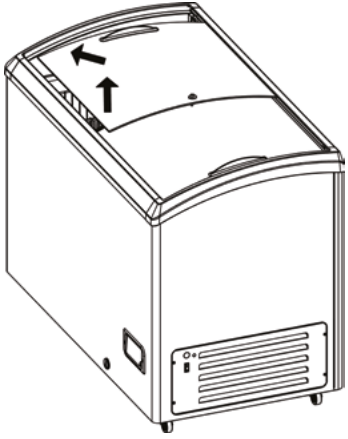
<table>
<tr><td colspan="2">1. Move the glass lid to the rightmost position.</td><td>  </td></tr>
<tr><td rowspan="2">2. Using a thin flat-head screwdriver, remove the seal from the guiding profile of the glass</td><td>2.1. Insert a screwdriver between the guide and the guide seal</td><td>  </td></tr>
<tr><td>2.2. With a circular motion of the screwdriver, remove the edge of the guide seal</td><td>  </td></tr>
</table>

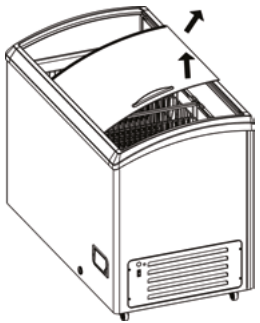
2. Using a thin flat-head screwdriver, remove the seal from the guiding profile of the glass	2.3. Pull guide seal along guiding pro¬file until the seal is completely out of guiding profile.	

2.4. Slide the glass into the guiding profile from which the seal was removed	2.5. Lift up the opposite edge of the glass that came out of the guiding profile	2.6. Remove the top glass
		

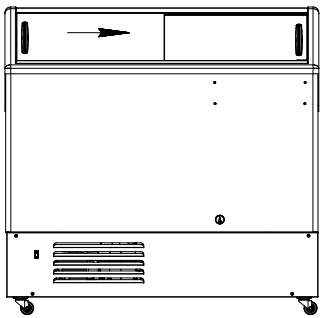
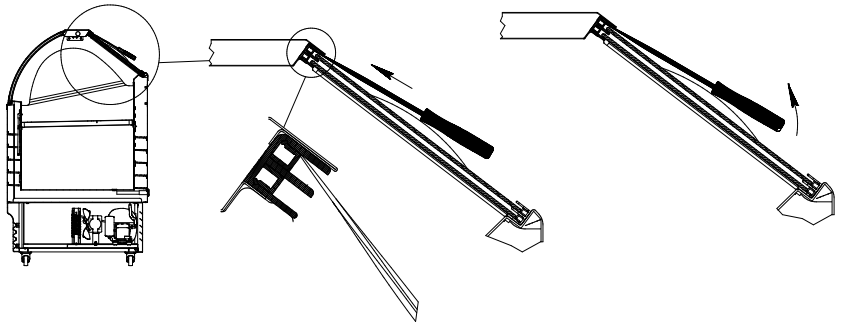
4. To remove the bottom glass - follow the same steps.
5. To install the glass on its previous position – please follow our recommendations in the reverse order

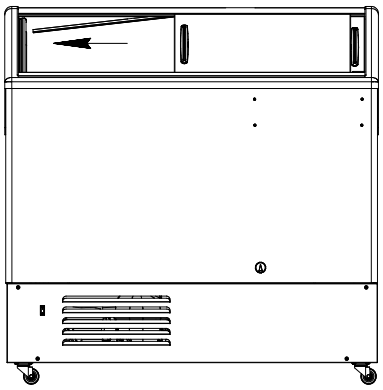
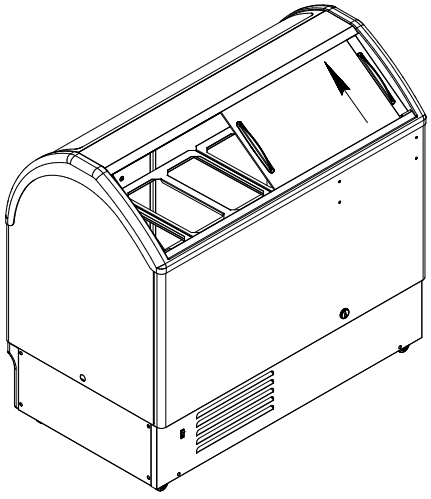
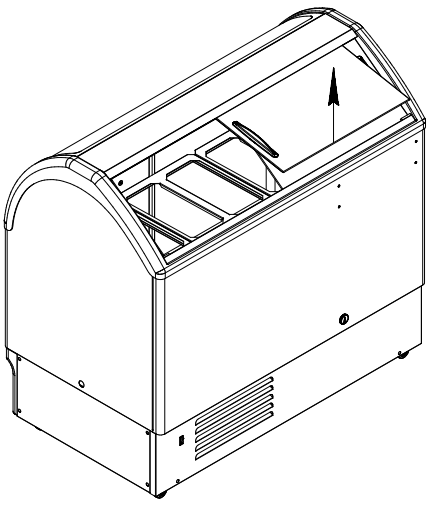
6.2. Glass Replacement for Models M/N200SF - M/N600SF

6.2.1. Move the glass lid to the center of the display freezer.	6.2.2. Lift the rear side of the upper glass lid up to the stop (pic. 1) and move the glass towards the back of the display freezer compartment (pic. 2).	6.2.3. Lift up the opposite side of the glass lid – the one which came out of the guide - and remove the top glass.
	Pic 1  Pic 2	

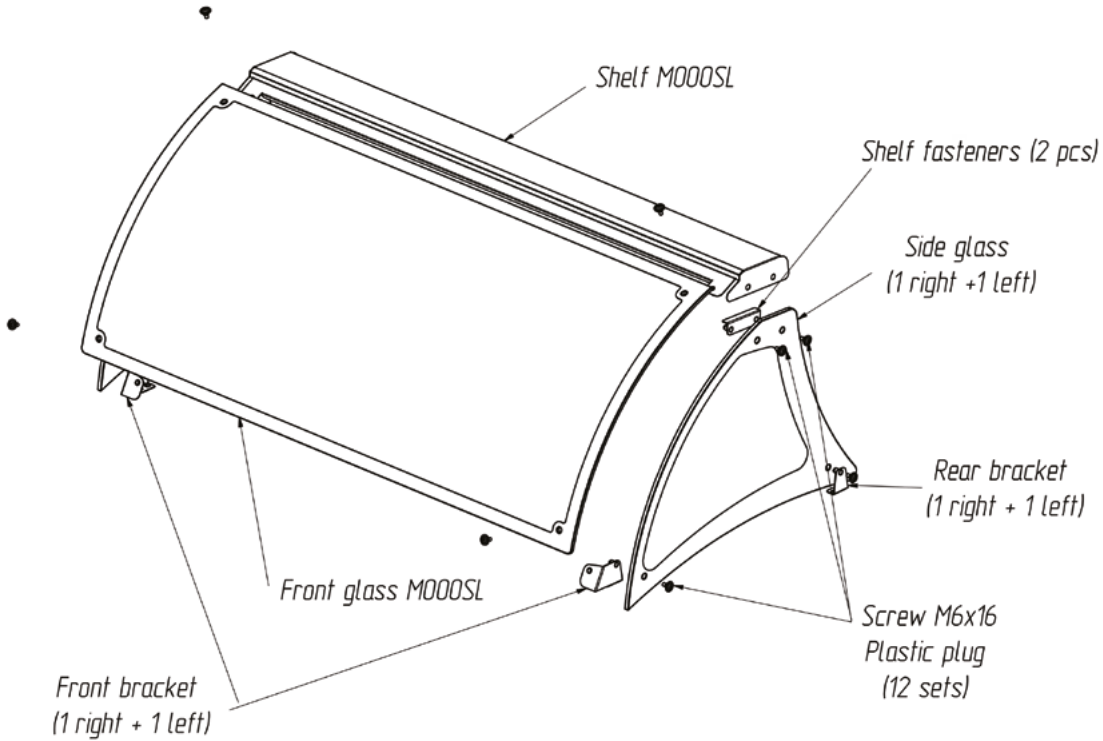
4. Lift up the back of the lower glass lid and remove the glass.	

6.3. Glass Replacement for Models M100Q, M300Q, M400Q, M600Q, M12Q, M18Q

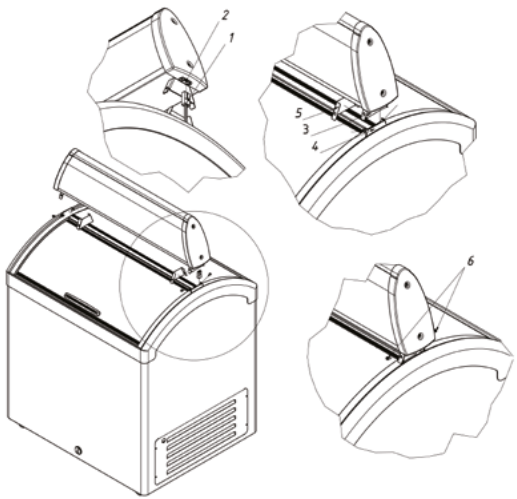
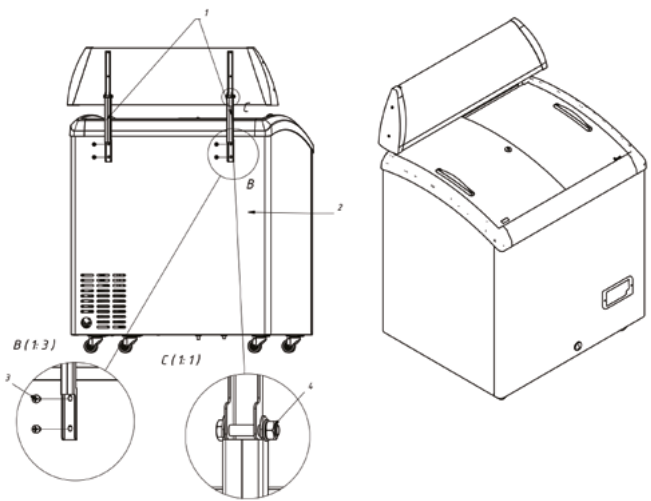
1. Move the glass lid to the rightmost position.	2. Using a thin flat-head screwdriver, remove the seal from the guiding profile of the glass. 2.1. Insert a screwdriver between the guide and the guide seal 2.2. With a circular motion of the screwdriver, remove the edge of the guide seal
	

3. Remove the top glass		
3.1. Pull guide seal along guiding profile until theseal is completely out of guiding profile.	3.2 Slide the glass into the guiding profile from-which the seal was removed	3.3 Lift up the opposite edge of the glass that came out of the guiding profile. Remove the topglass
		

6.4 INSTALLATION OF GLASS SUPERSTRUCTURE



6.5 INSTALLATION OF THE LIGHTBOX

6.5.1. Installation of the Lightbox for models M100V, M200V 1. Connect power plug 1 to connector 2; 2. Install the Light box 3 on the support bracket 4 and then install the cap 5; 3. Tighten the screw 6.	**6.5.2. Installation of the Lightbox for models M000SF, M000S, M000P, M000SH.** • Place the lightbox mounting brackets 1 near the mounting holes on the backside of the freezer 2. • Fix the position of lightbox 1 on the backside of the freezer 2, using the mounting screws 3. • If necessary, additionally tighten the locking bolt 4, which fixes the angle of the lightbox 1. • Connect the lightbox power connector.
	

7. FAULT IDENTIFICATION AND REPAIR

In case of any problems during the startup of the equipment or its operation, it is necessary to return to those sections of the service manual that explain their operations. This aims to ensure that the device is properly operated. If you still experience difficulties, the following hints will help you solve the problem.

The equipment does not work...

Make sure that:

- The device is connected to an electrical power supply
- Voltage and frequency in the network corresponds to those recommended by the manufacturer 220 V / 50 Hz
- Electronic controller is switched on

Damage to the power cord

- In case of damage to the power cord in order to avoid danger its replacement must be carried out by a manufacturer, service department or similarly qualified personnel.

The device is operating, the lighting is switched off...

Make sure that:

- The lighting switch is on
- LED_lamp or the starter of the device are not burnt

Equipment does not reach the appropriate temperature, the lighting is on ...

Make sure that:

- The temperature setting on the controller is set correctly
- The controller is operating properly

The equipment is working too loud ...

Make sure that:

- The device is standing stably and is properly levelled
- Furniture adjoining the device do not vibrate when the compressor is working.

If after verifying the items described in this section the equipment does not work properly, you should contact JUKA technical service, indicating the data from the data plate of the device.

JUKA Service phone number: +38 (097) 524 84 11

E-mail:service@juka.ua

8. DISPOSAL OF EQUIPMENT

In case the equipment no longer serves a useful purpose, it should be disposed of. The disposal of this equipment must comply with the national regulations on the disposal of waste. It is strongly recommended to contact certified recycle companies to dispose JUKA equipment in accordance with local and international regulations.

ATTENTION! ALL OPERATIONS REGARDING TRANSPORTATION AND DISPOSAL OF WASTE SHOULD BE CARRIED OUT BY AUTHORIZED COMPANIES AND PERSONNEL.

ATTENTION!
A warranty card is an integral part of the equipment and should always accompany the product.
This warranty is a legal obligation of the seller and the service centre to undertake the responsibility to rectify defects caused by the manufacturer free of charge during the warranty period. All warranty claims should include: model number of the unit, the serial number of the cabinet, proof of purchase with the date of sale and clear seller`s stamp.

Warranty claims can be denied in these cases:
– information about the equipment in the warranty card is not full or differs from the information, indicated on the equipment, buyer`s sign is absent;
– wrong installation, transportation, improper use and maintenance service of a compressor by buyer (please see Instruction Manual);
– improper usage or installation or failure to clean and/or maintain the product as outlined in the Instruction Manual;
– any mechanical damages which could lead to improper operation or equipment failure;
– violation of instructions recommendations during the operation of equipment or because of wrong user actions;
– if there has been any disaster or in other standard insurance cases, which led to an inability to use the equipment (flood, fire, accident etc.) and in any other circumstances, which are not under seller`s or manufacturer`s control;
– in cases of detecting any signs of liquids, insects or other similar problems which led to the problem of normal operation;
– non-qualified repair or any constructive changes of the system by unauthorized persons;
– there is no warranty responsibility for the repair or replacement of failed or damaged components resulting from the incorrect supply voltage, the use of extensions cords, low voltage, or unstable supply voltage.

WARRANTY DOES NOT COVER PERIODICAL MAINTENANCE, INSTALLATION, SET UP OF THE EQUIPMENT, AND CABLE CHANGE.

Warranty does not cover standard wear parts or parts which are considered as consumables by the standards of the manufacturer, such as lamps, glass, plastic (handles etc.), rubber, locks, wheels etc.

This warranty does not narrow the buyer`s legal rights, which are determined by law.

Seller assumes no responsibility and will accept no claims nor any charges in connection with any repairs of a non-warranty case. Buyer must reimburse the service for labour, travel costs and other related expenses of non-warranty repairs by his own cost.

Warranty card

Product and model _____

Date of sale _____

Serial number _____

Warranty period _____

The buyer confirms the technical serviceability of the product/

_____
Seller's signature

_____
Buyer's signature

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Виробник має право без попереднього сповіщення змінювати технічну специфікацію і характеристики обладнання, що не погіршують його функціональність.
Наведені ілюстрації, фото, картинки обладнання можуть відрізнятись від реальної моделі.

The Producer reserves the right to alter the functions and technical specification of their equipment. The pictures are provided on an illustrative basis for products presentation purposes only.

Producent zastrzega sobie prawo do zmiany specyfikacji technicznych i właściwości sprzętu bez uprzedzenia, co nie wpływa negatywnie na jego funkcjonalność.Podane ilustracje, zdjęcia, zdjęcia sprzętu mogą odbiegać od rzeczywistego modelu.

Производитель имеет право без предварительного уведомления изменять техническую спецификацию и характеристики оборудования, не ухудшающие его функциональность.
Представленные иллюстрации, фото, картинки оборудования могут отличаться от реальной модели.