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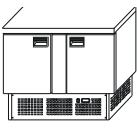
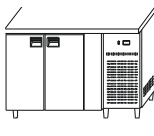
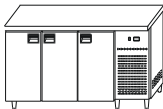
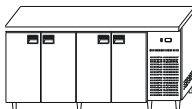
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**READ CAREFULLY THE
FOLLOWING INSTRUCTIONS
BEFORE USE.**

1. Technical specifications of the appliance

a) Refrigerated counter

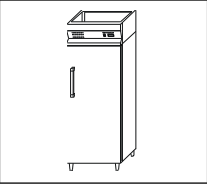
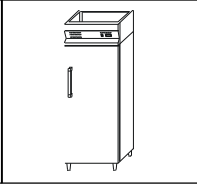
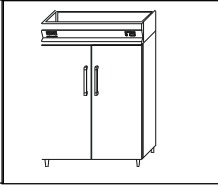

The refrigerating equipment is incorporated in the lateral part of the appliance. Technical data are shown at the following table:

				
	BP7300	PN99	PN999	PN9999
Capacity (Lt)	266	352	433	588
*Temperature (°C)	0°C ~ 10°C	0°C ~ 10°C	0°C ~ 10°C	0°C ~ 10°C
El. Consumption (KWh/24 h)	5,12	5,12	5,12	6,81
Weight (Kg)	100	122	130	154
Freon	R134a	R134a	R134a	R134a
Cooling power (W)	773	773	773	1022
Compressor power (HP)	1/4	1/4	1/4	3/8
Dimensions out (cm)	106,5 x 70 x 86	156 x 70 x 86	179 x 70 x 86	224 x 70 x 86
Dimensions in (cm)	95,5 x 58 x 48	101 x 58 x 60	124,5 x 58 x 60	169 x 58 x 60
Dimensions packed (cm)	108 x 75,5 x 99	157 x 75,5 x 91	180 x 75,5 x 91	225 x 75,5 x 91
Number of shelves	2	2	3	4
Dimensions of shelves (mm)	325 x 555	325 x 555	325 x 555	325 x 555

* Temperature is controlled by electric thermostat.

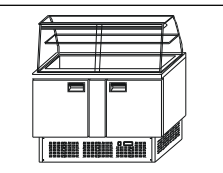
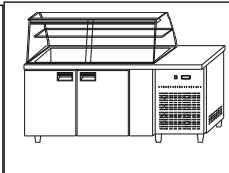
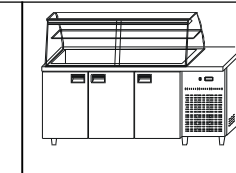
b) Upright refrigerator – Refrigerated cabinet

The refrigerating equipment is incorporated in the upper part of the appliance. Technical data are shown at the following table:

				
	CA170	CB170	CE2140	CF2140
Capacity (Lt)	679	679	1471	1471
*Temperature (°C)	0°C ~ 10°C	-20°C ~ 0°C	0°C ~ 10°C	-20°C ~ 0°C
El. Consumption (KWh/24 h)	6,81	7,46	8,83	9,81
Weight (Kg)	114	115	175	175
Freon	R134a	R404a	R134a	R404a
Cooling power (W)	1022	798	1560	1140
Compressor power (HP)	3/8	3/4	1/2	1
Dimensions out (cm)	85 x 70 x 208	85 x 70 x 208	85 x 140 x 208	85 x 140 x 208
Dimensions in (cm)	73 x 60 x 155	73 x 60 x 155	73 x 130 x 155	73 x 130 x 155
Dimensions packed (cm)	86,5 x 72,5 x 218	86,5 x 72,5 x 218	86,5 x 142,5 x 218	86,5 x 142,5 x 218
Number of shelves	3	3	6	6
Dimensions of shelves (mm)	534 x 690	534 x 690	534 x 690	534 x 690

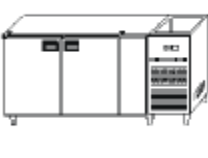
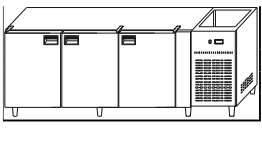
c) Open top refrigerated counter

The appliance is based on the simple refrigerated counter construction and it can be produced with a luminous glass case. It is an open top construction allowing the option to place two rows of gastronorm pans.

			
	BS7300	ZQ99	ZQ999
Capacity (Lt)	266	352	433
*Temperature (°C)	+2°C ~ 10°C	+2°C ~ 10°C	+2°C ~ 10°C
El. Consumption (KWh/24 h)	5,34	7,03	7,03
Weight (Kg)	130	151	166
Freon	R134a	R134a	R134a
Cooling power (W)	773	1022	1022
Compressor power (HP)	1/4	3/8	3/8
Dimensions out (cm)	106,5 x 70 x 129	156 x 70 x 129	179 x 70 x 129
Dimensions in (cm)	95,5 x 58 x 48	101 x 58 x 60	124,5 x 58 x 60
Dimensions packed (cm)	108 x 75,5 x 135	157 x 55,5 x 135	180 x 55,5 x 135
Dimensions of shelves (mm)	325 x 555	325 x 555	325 x 555
Number of G/N pans	12	12	14

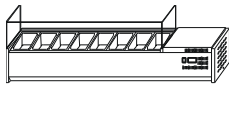
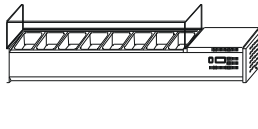
d) Pizza refrigerated counter

The refrigerating equipment for pizzas is incorporated in the lateral part of the appliance. The appliance is provided with a white marble from the island Naxos¹ for its counter top.

		
	WN88	WN888
Capacity (Lt)	507	690
*Temperature (°C)	+0°C ~ 10°C	+0°C ~ 10°C
El. Consumption (KWh/24 h)	6,81	6,81
Weight (Kg)	116	140
Freon	R134a	R134a
Cooling power (W)	1022	1022
Compressor power (HP)	3/8	3/8
Dimensions outside with top (cm)	179 x 80 x 86	224 x 80 x 86
Dimensions inside (cm)	124,5 x 68 x 60	169 x 68 x 60
Dimensions packed (cm)	180 x 85,5 x 91	225 x 85,5 x 91

e) Pizza refrigerated show case

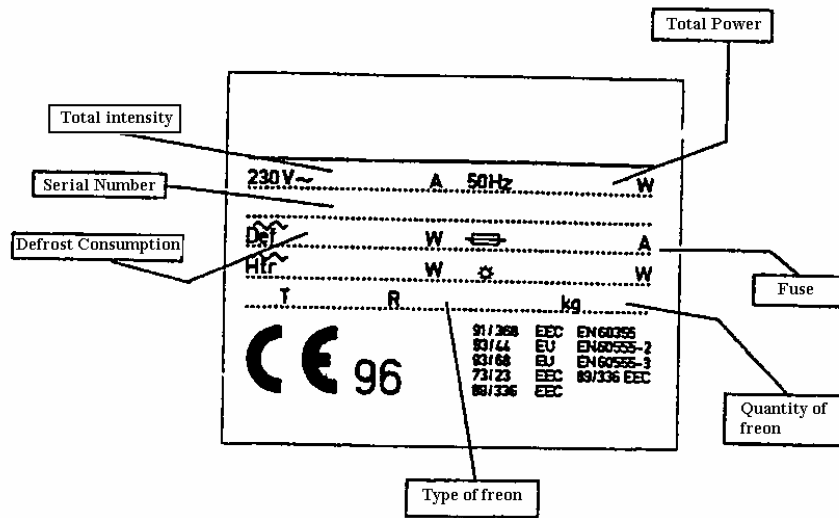
The pizza refrigerated show case is an open top construction providing for the use of one row of gastronorm pans. It can be produced with a luminous glass case.

		
	WV179	WV224
Number of G/N pans 1/4	8	11
*Temperature (°C)	+3°C ~ 10°C	+3°C ~ 10°C
El. Consumption (KWh/24 h)	1,72	1,72
Weight (Kg)	50	60
Freon	R134a	R134a
Cooling power (W)	122	139
Compressor power (HP)	1/6	1/5
Dimensions outside (cm)	179 x 34 x 42	224 x 34 x 42
Dimensions packed (cm)	184,5 x 39 x 47	229,5 x 39 x 47

All models' voltage is 230 V / 50 Hz. Insulation thickness is 50 mm. Temperature is controlled by electric thermostat.

¹ The island of Naxos in the Aegean archipelago is famous from the ancient years for its crystalline marble production.

All the technical characteristics necessary are specified on the identification tag positioned to the right of the device.



2. Transportation – Positioning – Installation

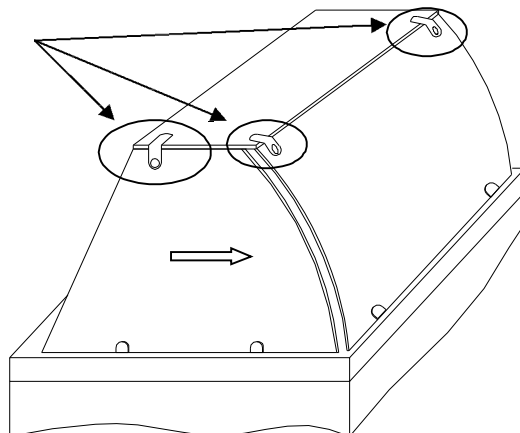
! ATTENTION: Keep the appliance in an upright position during the transportation in order to avoid critical damage in the appliance's systems.

Remove all packaging. Move carefully the device to its final position. If the floor is not flat regulate the feet, so that all the feet are in contact to the floor. Keep the appliance slightly bent backwards for better door closing.

Insert the plug into the current tap and the installation is completed. The appliance is supplied with an electric plug, SHUKO type.




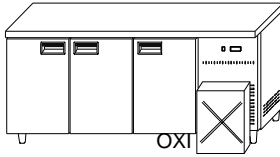
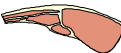


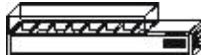
! ATTENTION: Current taps or plugs always must be provided with ground (SHUKO type).

If the device has showcase remove the packaging among the crystals and move the two side crystals unscrewing the screws pointed at the picture, so that the crystals line-up with the front crystal of the vitrine.





3. Safety instructions

For your safety and the proper function of the appliance please follow the instructions below:

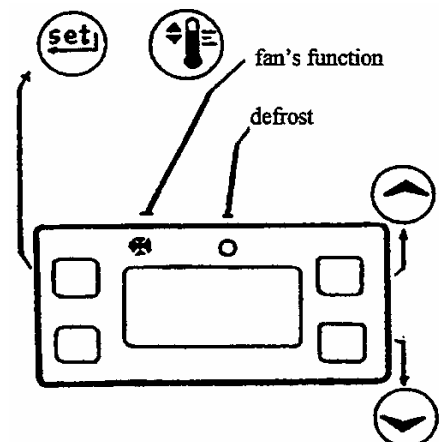
SAFETY INSTRUCTIONS	
	Store all products to be preserved so as not to obstruct the air circulation among the shelves of the appliance.
	Do not store hot food or hot drinks into the refrigerator.
	Do not install the appliance near heat sources or inside rooms with high temperature (over 40 0C) and humidity. This would cause a low efficiency and short life. Never let the doors open for a long time.
	Do not cover the intake air – slots when the machine is ON. On solid door refrigerators especially do not cover the upper side of the appliance. On pizza show cases do not cover the right side of the appliance, where the cooling machine stands.
	Cover the food with a plastic film before putting it into the refrigerator.
	Do not change the parameters of the electronic thermostat. This should be performed only by an authorized technician.
	Do not wash the appliance by spraying high – pressure water. Do not use detergents or substances based on chlorine. These could corrode the surface of the refrigerator.
	On pizza refrigerated show cases: Do not operate without gastronorm pans covering the whole cooling space.

4. INSTRUCTIONS FOR USE OF THERMOSTAT BIT12RU FOR REFRIGERATORS

The user can be informed of the temperature

desired by pressing the  or 

button according to the model of the screen settled on the appliance. The user can change this temperature by pressing the arrows to the right of the screen.



All configuration parameters are adjustable within the SETUP function which is accessible by pressing [6] + [*F] + [5] for 4 seconds. Scroll the parameter list via keys [5] and [6] until you achieve the desired one, display its value by pressing [*F] and modify it via [*F] + [5] or [6]. Exit from the setup takes place automatically after 15 seconds of no key activation.

If probe A fails, the display shows “E1” and the compressor remains on for either 40% or 100% of the time. Parameter **cF** determines the compressor status: 00 = 40% (3 min. on, 4 min. off); 01 = 100% (always on).

Defrost

The defrost frequency is determined by parameter **dF** and the duration by parameter **dt**. With **dF** = 0, automatic defrosts are suspended. As the BIT20B model does not include defrost termination probe and defrost relay, parameters **dL**, **dM** and **dr** have got a particular meaning and must not therefore be set to values different from factory settings.

Defrost may also be induced manually, by pressing the button located on the control unit or by pressing keys [5] and [6] simultaneously.

Table 1, Parameters for refrigerators

	Symb	Description	Min and Max Limits	Factory Setting	Notes
1	SP	Set point	SL.....Sh		
2	SL	Minimum set point limit	-35.....Sh		
3	Sh	Maximum set point limit	SL.....+15 °C	+08 °C	
4	hy	Hysteresis (delay)	(+01.....+08) K	+03 K	
5	cr	Compressor minimum pause	00.....04	02 min	
6	cF	Compressor in TA failure	00=40% 01=100%	00	
7	dF	Defrost frequency per 24 hours	00.....12	06 times per 24 hours	
8	dt	Maximum defrost duration	01.....90	20 min	
9	dL	Defrost limit temperature	+01....+20	10 °C	Don't change
10	dM	Defrost mode	00 = off cycle 01 = electrical 02 = hot gas	01	Don't change
11	dr	Drain time	00.....10	00	Don't change
12	th	Temperature hidden in defrost	0=on.....60	5 min	
13	to	Display offset	(-09.....+09) K		
14	tS	Display slowdown	00.....20	00	

Notes:

- All refrigerated counters work between 0 °C and 3 °C, except the open top refrigerators, that work between 2 °C and 5 °C.
- If you want your refrigerator to work between -2 °C and +4 °C, then you should change the following parameters:
 - a) Change the parameter 1 (SP) to (SP)-2 (if (SP)=2 then you must set (SP)=0)
 - b) Set the parameter 4 (hy) = 6.

5. INSTRUCTIONS FOR USE OF THERMOSTAT SMD12RU FOR FREEZERS

Your new appliance has on its front a little digital screen where the user could read the temperature inside the refrigerator.

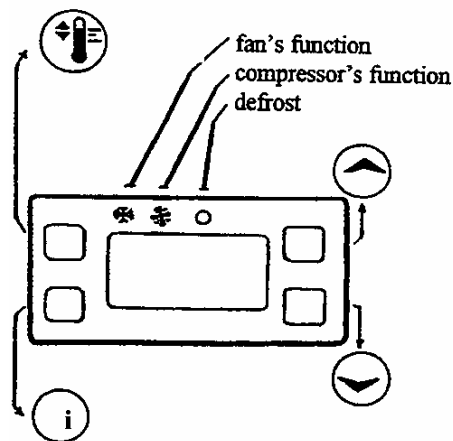
5.1. SETTING TEMPERATURE: The user can be informed of the setpoint temperature by pressing



. He can change this temperature by pressing the arrows to the right of the screen.

5.2 DEFROST: The defrost frequency is set 4 times per day. It is possible to manually start or abort defrost by pushing key [i] and then [i] + [5].

5.3 SETUP MENU: To access the parameter menu select 47 for the passcode "PC". To achieve this press buttons [i] + [5]. You exit from setup by pressing [i] or automatically after 30 seconds of no button activation.



ATTENTION: The thermostat's parameters are set by the factory in order to accomplish best performance of your device. Before any change in the setup menu you should be advised by an authorized technician.

Table 1, Parameters for freezers

	Symb	Description	Minimum and Maximum limits	Factory settings
1	SPL	Minimum set point	-40.....+SPH ⁰	-21
2	SPH	Maximum set point	SPL.....+250 ⁰	0
3	SP	Temperature set point	SPLSPH ⁰	-18
4	hYS	Hysteresis (delay)	-30.....+30 ⁰	3
5	DFR	Defrost frequency / 24h	00.....24	4
6	DLI	Defrost end temperature	00.....70 ⁰	30
7	DTO	Defrost time out	00.....120 min	20
8	DTY	Defrost type	OFF / ELE / GAS	ELE
9	DRN	Dripping time	00.....30 min	0
10	DDY	Display in Defrost	00 . . .60 min	10
11	FPC	Evaporator fan control	0 . . . 5	0
12	FDD	Fan restart after defrost	-40 . . . +70 ⁰	-2
13	ATL	Low alarm differential	-25 . . . 0 ⁰	-25
14	ATH	High alarm differential	0 . . . +25 ⁰	0
15	ATD	Temperature alarm delay	0...120 min	60
16	ADO	Door alarm delay	0...120 min	5
17	ACC	Periodic condenser cleaning	0...120 weeks	26
18	ACT	Condenser alarm temperature	0...250 ⁰	70
19	CSD	Compressor safety stop delay	0...30 min	0
20	CFT	Condenser temperature	-40 . . . +250 ⁰	25
21	CRT	Compressor rest time	0...30 min	2
22	CDC	Cooler duty cycle	0...10 min	10
23	OFF	Standby button enable	YES/NO	YES
24	DS	Door switch enable	YES/NO	YES
25	LDO	Lights enable	YES/NO	NO

26	T2	Probe 2 enable	YES/NO	YES
27	T3	Probe 3 enable	YES/NO	NO
28	SCL	Temperature units selection	⁰ C / ⁰ F	⁰ C
29	oS1	Thermostat offset	-15.....+15 ⁰ C	0
30	oS2	Evaporator offset	-15.....+15 ⁰ C	0
31	oS3	Display offset	-15.....+15 ⁰ C	0
32	SiM	Display delay	0.....100	0
33	Adr	Peripheral number	000.....255	01


Note:

If you wish a freezer to work as a refrigerator then you must change the following parameters:

- 1) Change the parameter SPL (1) from -21 ⁰C to -2 ⁰C
- 2) Change the parameter SPh (2) to 10 ⁰C
- 3) Change the parameter SP (3) to 0 ⁰C
- 4) Change the parameter FDD (12) to +8 ⁰C
- 5) Change the parameter ATL (13) to -2 ⁰C
- 6) Change the parameter ATH (14) to +10 ⁰C

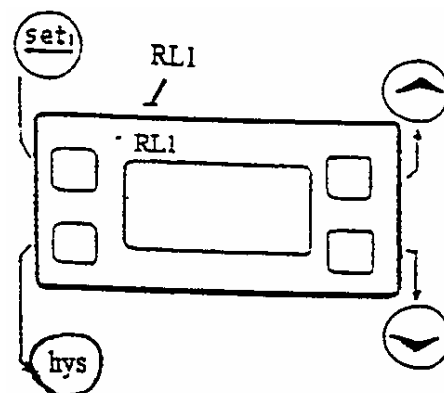
6. INSTRUCTIONS FOR USE OF THERMOSTAT MTR12 FOR PIZZA SHOW CASE

7.1. The user can be informed of the desired temperature

by pressing the  button. He can change this temperature by pressing the arrows to the right of the screen.

7.2 Pressing the key [**set**] the programed minimum temperature value is displayed for 2 sec.

7.3 Pressing the key [**hys**] the delay value is displayed for 2 sec.



7.4 SETUP: Switch off the unit; press keys [5] and [6] and, by keeping them pressed switch on the unit again; "Par" appears on display. Parameter selection and the display of the value is obtained by pressing key [**set**] repeatedly; change with keys [5] and [6] and store with [**set**]. To skip from one parameter to the next without displaying the value, press key [6]. It is also possible to select a specific parameter and change its value by following the diagram attached.

Table 1, parameters for vitrine pizzas

A/a	Symb	Description	Minimum and Maximum limits	Factory Settings
1	6 SP	Minimum set point limit	-50...+150 ⁰ C	+03 ⁰ C
2	5 SP	Maximum set point limit	6 SP...+150 ⁰ C	+07 ⁰ C
3	rt1	Minimum Off time for RL1.	00...10 minutes	01 min.
4	PF1	Permanent status assigned to RL1 output in case of probe failure	On...Off	On
5	ADJ	Offset added to the input value	-20...+20 K	
6	hy1	Hysteresis (delay)	-25...+25 K	03 K

7. Instructions of new thermostat for drainage resistance

Your new appliance has a 150 W electric resistance in order to evaporate the condensed water in the drainage canister. The function of the resistance is controlled by a thermostat, situated next to the cooling mechanism, at the top of the refrigerator. The thermostat accomplishes best performance and minimum consumption of the resistance. The optimum setting for the thermostat is 65 °C for refrigerated cabinets and 75 °C for freezers.

At environments, where humidity is higher than 70% increase the above setting to 70 °C and 80 °C accordingly.

The electric consumption of the resistance with the above settings is 0,4 KW/24h for refrigerated cabinets and 2,1KW for freezers.

8. Daily and general cleaning – Maintenance

Frequent cleaning is highly recommended. Do not use sharp or other similar objects which may damage your appliance.

Empty the drain basin (if there is one) in the lower part of the refrigerator regularly.

Clean the surfaces with a wet cloth carefully. In case of spots or food rests wash with hot water before they get too hard to be washed out. Use water and neutral soap or a detergent without chlorine and eventually some wooden spatula or a thin stainless steel sponge.

Also clean the space around and under the appliance. The usual ‘unpleasant’ smell disappears if some vinegar is added to the cleaning water.



ATTENTION:

Do not wash the appliance by spraying high – pressure water. Do not use detergents or substances based on chlorine or acid solvents. These may cause corrosion of stainless steel.

Keep the condenser of the refrigerator clean, according to the conditions and the place where the appliance operates. Otherwise, the efficiency of the refrigerator will be reduced and finally the compressor will fail.

Before you proceed to any cleaning or maintenance, put off the general switch and disconnect the plug from the electrical supply.

9. Temporary interruption of functioning

In case you wish to put the appliance off for a while, in order to keep it in the best possible condition, follow the instructions:

Put the appliance off and disconnect from the electrical supply. Empty the appliance and clean it as indicated above. Keep the doors open in order to avoid unpleasant odors.

10. Advice for saving energy

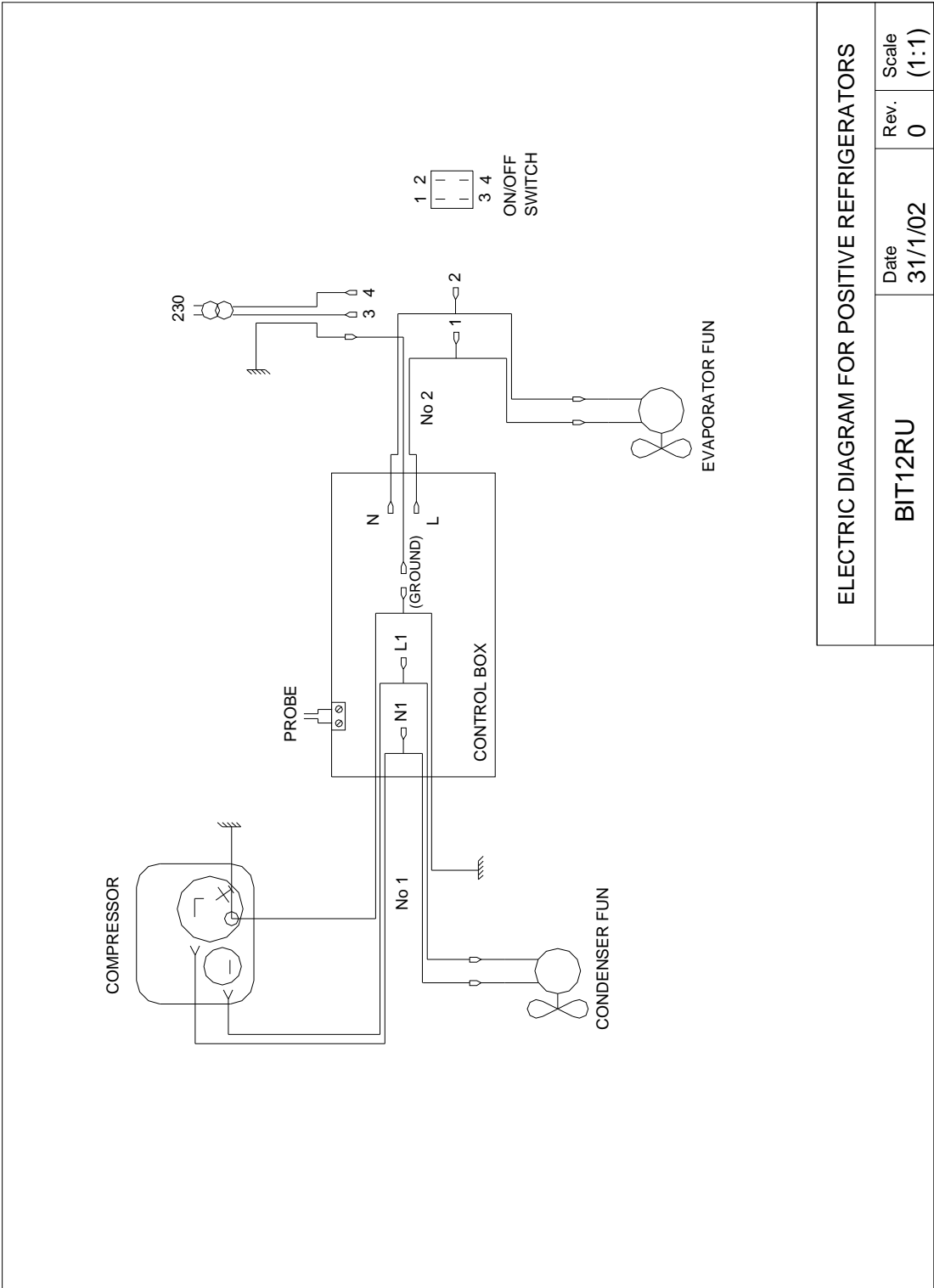
- Open the appliance’s doors according to your needs but do not do that pointlessly. They must remain open the less possible can be, especially during hot and humid periods.
- The utensils you put in the refrigerator must be dry and the food must be wrapped with special film in order to limit the humidity inside the refrigerator.
- Check regularly that the refrigerator’s doors are solidly closed.
- Check the door seals inside the doors.
- Do not place your refrigerators near heat sources as radiators, ovens or points with high sun radiation.

- Do not fill at once your appliance with big quantities of products, because this will increase the energy consumption.

11. Troubleshooting

	Malfunction	Possible cause	Solution
1	The refrigerator does not cool	<ul style="list-style-type: none"> • There is ice in the evaporator • The products are obstructing the air flow • Ice in the cooling system • The room temperature is very high 	<p>See case 2</p> <p>Remove the products which obstruct the air flow of the evaporator</p> <p>Call a technician to change the filter</p> <p>Improve the temperature condition of the room</p>
2	Ice in the evaporator	<ul style="list-style-type: none"> • The temperature adjustment is very low (for high temp. refrigerators) • Defrost malfunction • High humidity environment • Humid products have been placed in the refrigerator (ex. Vegetables) • The doors are opened frequently and for a long time 	<p>Check the temperature adjustment. Increase the parameter SP to 1 or 2 °C</p> <p>Proceed to a manual defrost. If the defrost function works increase the defrost frequency. If the defrost function fails, change the thermostat. Improve the environment condition. Increase the defrost duration. Cover the food with a plastic film before putting it into the refrigerator. Increase the defrost duration. Decrease the 'open door' duration as possible. Increase the defrost duration.</p>
3	Water in the refrigerator	<ul style="list-style-type: none"> • The drainage pipe has been sealed • Bad sealing of evaporator base 	<p>Clean the drainage pipe</p> <p>Repair by a technician</p>
4	The drainage pipe has ice (for freezers)	<ul style="list-style-type: none"> • Evaporator resistance failure • The drainage pipe has been sealed 	<p>Replace</p> <p>Clean the drainage pipe</p>
5	Water in the gastrorm pans (for open top refr.)	<ul style="list-style-type: none"> • High humidity environment 	<p>Decrease the cooling temperature</p>
6	The fuse burns when defrost takes place (for freezers)	<ul style="list-style-type: none"> • Evaporator resistance failure • The fuse is smaller than the proper 	<p>Replace</p> <p>See the minimum fuse (A) on the identification tag</p>
7	The thermostat display indicates "Alarm" and the compressor does not function (for freezers)	<ul style="list-style-type: none"> • The door switch has been disconnected • Door switch failure • Evaporator fan failure 	<p>Reconnect the door switch to the thermostat display</p> <p>Replace</p> <p>Check if the evaporator fan works. If not replace.</p>

- è In any case of malfunction contact the dealer of our company describing the problem, denoting the type and the serial number (S/N) of your appliance.

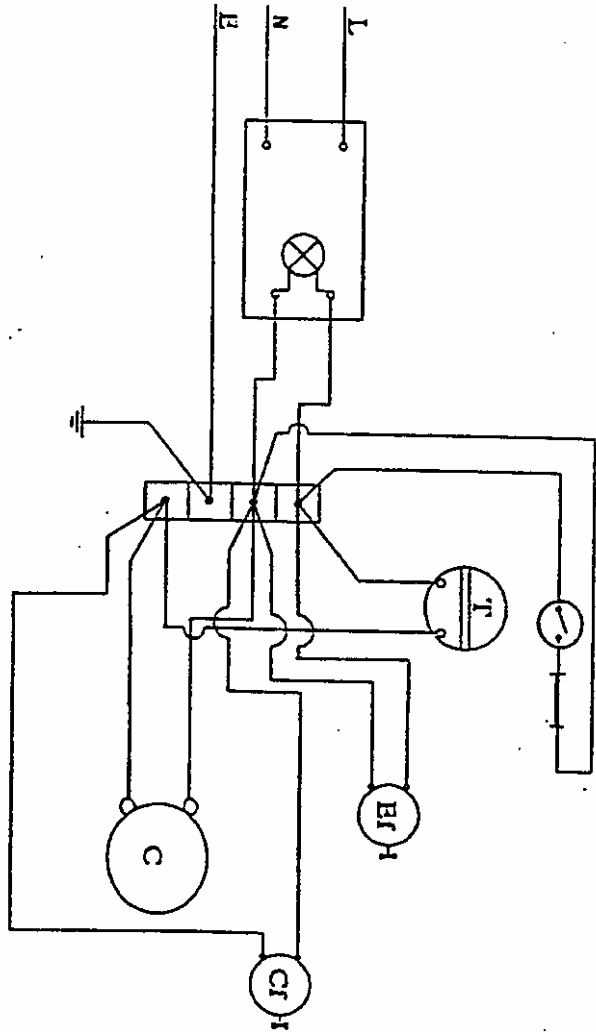












ELECTRIC DIAGRAM FOR POSITIVE REFRIGERATORS

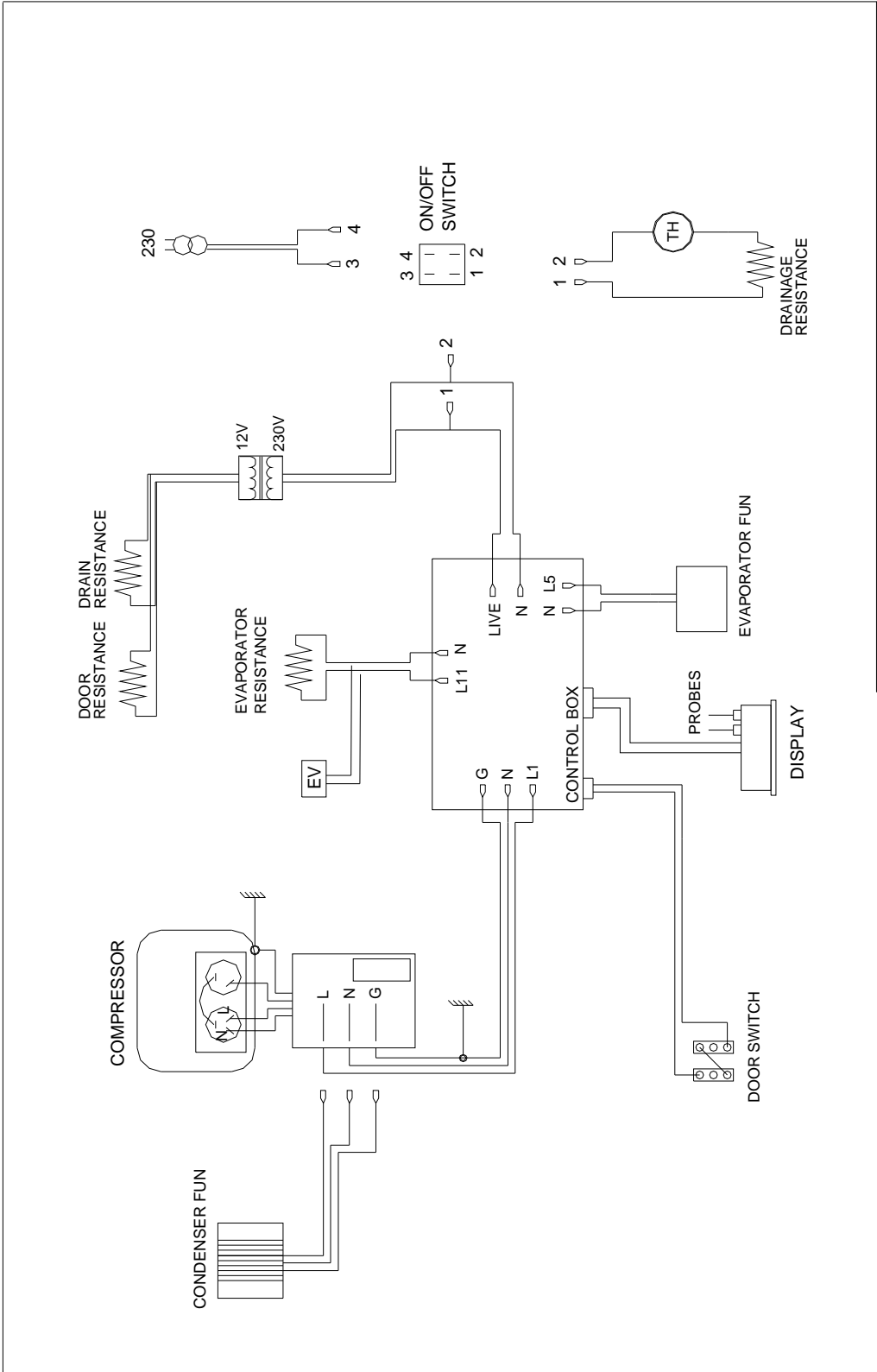
BIT12RU	Date 31/1/02	Rev. 0	Scale (1:1)
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ELECTRIC DIAGRAM

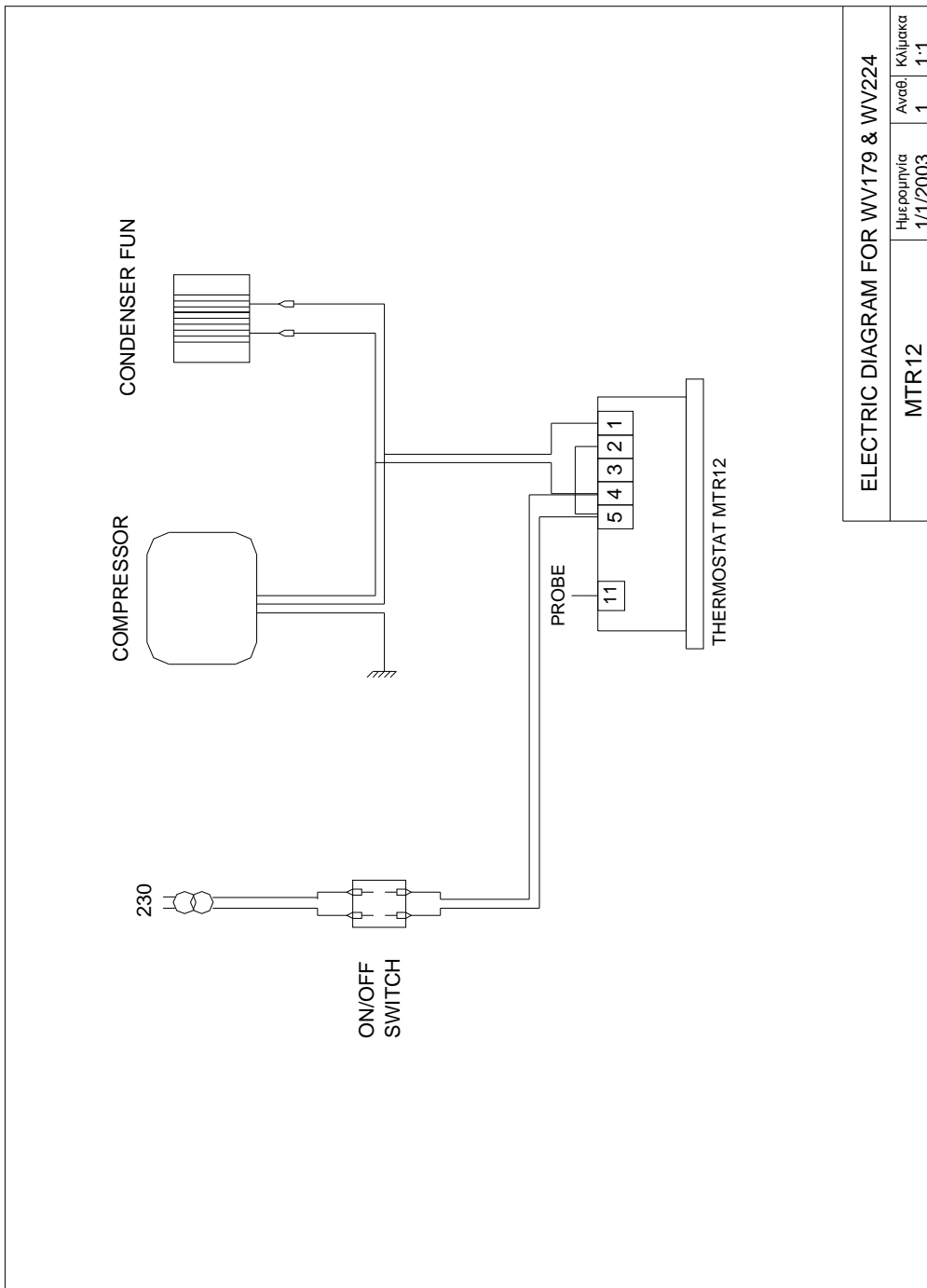
OPEN TOP REFRIGERATED COUNTER WITH DISPLAY CASE



-  Circuit breaker
Амперлік Күйдіреткіс
-  Fluorescent lamp
Ақпан Ішпуртөуіс
-  Resistance
Аыттан
-  Fluorescent lamp
Ақпан Ішпуртөуіс
-  Evaporator fan
Аыпуртөуіс Ефана
-  Condenser fan
Аыпуртөуіс Ефана
-  Compressor
Ефана
-  Thermal switch
Өрпуртөуіс
-  Two phases general circuit breaker
І екеуіс ақпан Ішпуртөуіс өрпуртөуіс
-  Grounding
Ефана



ELECTRIC DIAGRAM FOR FREEZERS		
SMD12	Date 1/3/2002	Rev. 1
	Scale	



ELECTRIC DIAGRAM FOR WV179 & WV224

MTR12	Исполнения	AvceB	Классика
	1/1/2003	1	1:1