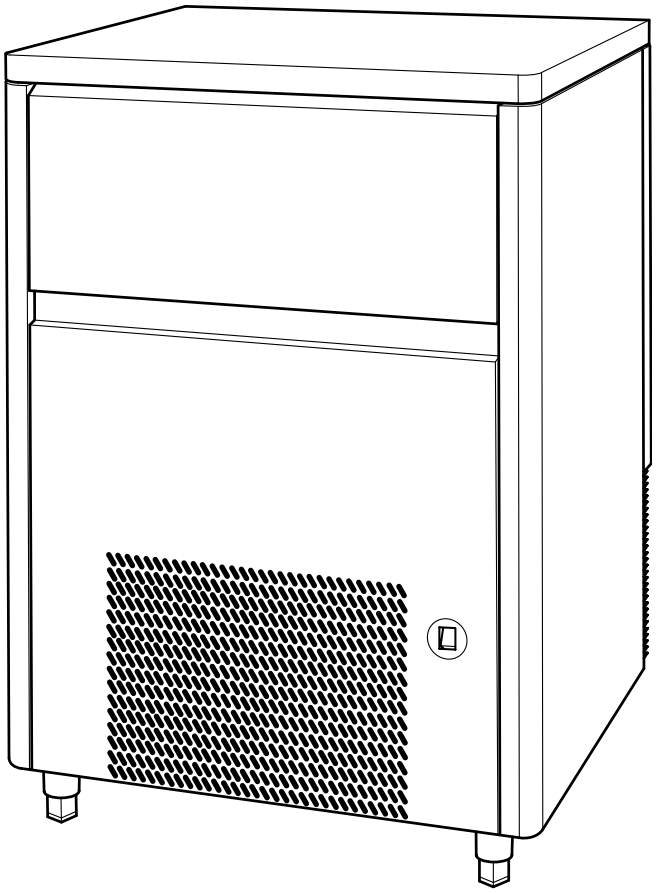
Kastel

GB

KASTEL s.r.l. - Via Fusina, 1/A - 31033
Castelfranco Veneto - Treviso - Italy

AUTOMATIC ICE MAKER



USER MANUAL

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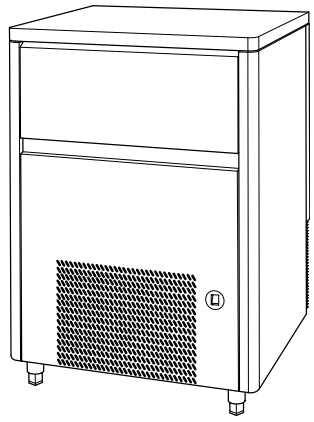
IDENTIFICATION PLATE



Kastel Castelfranco V.to (ITALY)

TYPE KP25/6W MAT.123451005

COD. 901220

V230M ~ 50Hz MAX 420 W

REFRIGERANT R404A gr. 160

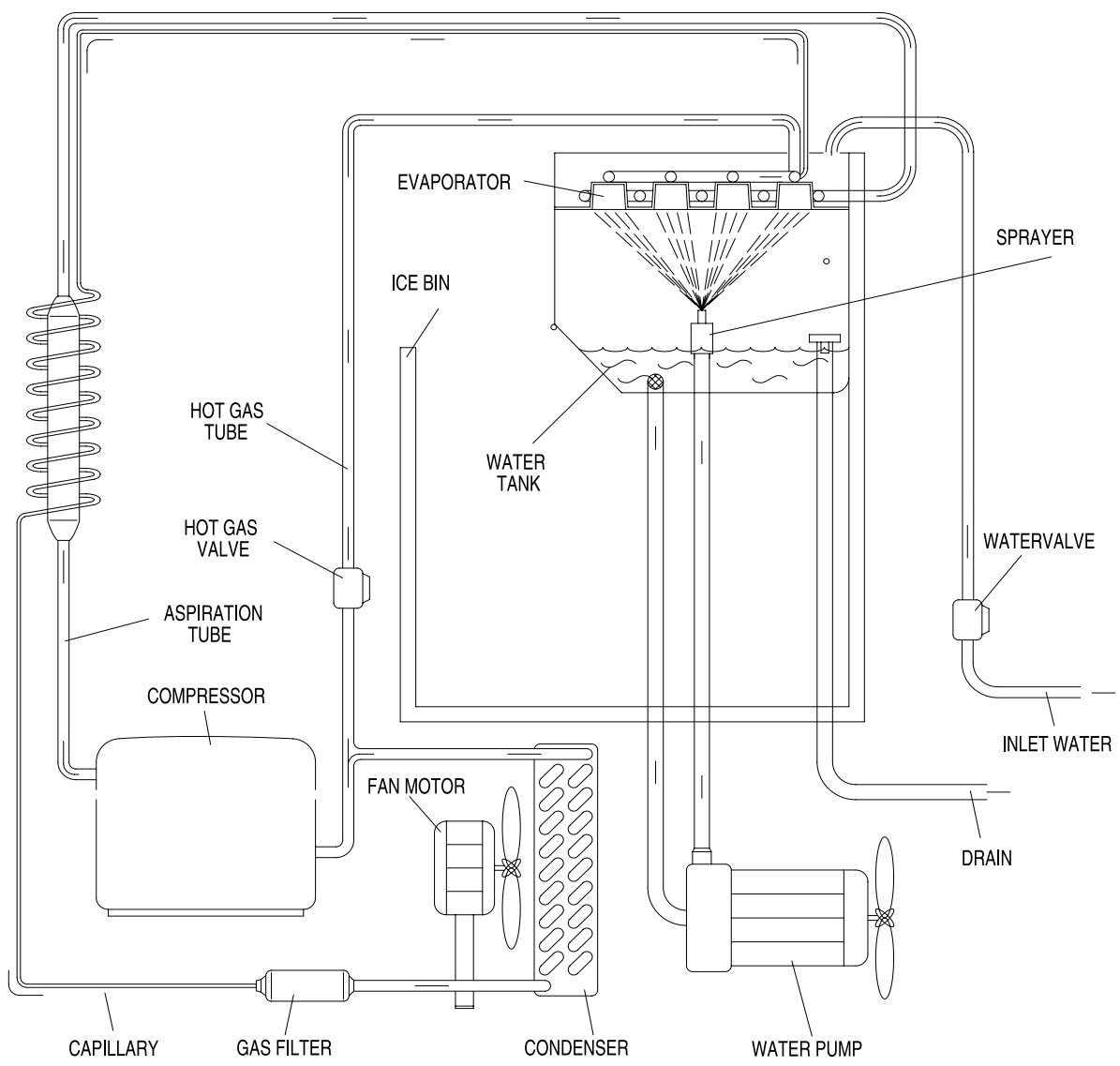
Made in Italy CL.T IPX2

1 INTRODUCTION TO MACHINE OPERATION

OPERATING CYCLE DESCRIPTION

Correctly connect the ice maker to power and water mains, fill up the water tank and bring the machine switch to position “I”. Power will get to the compressor, water pump and fan motors, switching them on to start the freezing cycle. The nozzles will begin spraying water into the caps.
As the evaporator thermostat bulb reaches the right temperature, the freezing cycle timer starts off.
At the set time, the water pump stops and the water load (to top up the tank) and cycle reversal solenoid valves are opened. Heat is pumped to the evaporator and, as a result, the ice cubes are dropped from the copper caps into the ice storage bin. When the bin is full, the ice level thermostat stops ice production.
As the evaporator thermostat reaches the preset temperature, the cycle reversal timer starts off. At the set time, the water load and cycle reversal solenoid valves are closed and the machine starts a new freezing cycle.

OPERATIONAL DIAGRAM



2 TECHNICAL DATA

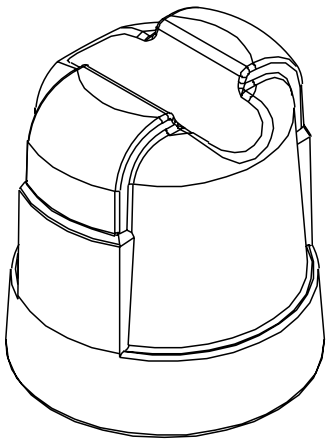
ICE MAKERS - TECHNICAL DETAILS

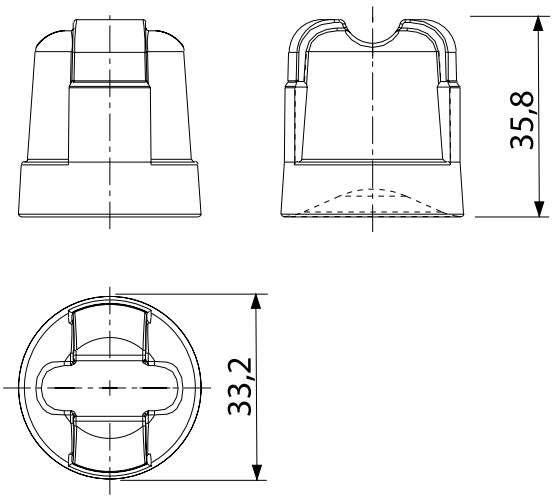
Mod.	Production 24h (Kg)	Storage capacity (Kg)	Cooling system	Gas refrigerant	Cubes in a cycle (N°)	Voltage	Power max. (W)
KP 21/5	21	5	A	R404A	24	230V~50Hz	420
	21	5	W	R404A	24	230V~50Hz	420
KP 22/5	22	5	A	R404A	24	230V~50Hz	420
	22	5	W	R404A	24	230V~50Hz	420
KP 25/6	25	6	A	R404A	24	230V~50Hz	420
	25	6	W	R404A	24	230V~50Hz	420
KP 28/7	28	7	A	R404A	24	230V~50Hz	530
	28	7	W	R404A	24	230V~50Hz	530
KP 30/10	30	10	A	R404A	24	230V~50Hz	530
	30	10	W	R404A	24	230V~50Hz	530
KP 44/15	44	15	A	R404A	36	230V~50Hz	700
	44	15	W	R404A	36	230V~50Hz	700
KP 50/26	50	26	A	R404A	36	230V~50Hz	800
	50	26	W	R404A	36	230V~50Hz	800
KP 75/40	75	40	A	R404A	60	230V~50Hz	950
	75	40	W	R404A	60	230V~50Hz	950
KP 100/60	100	60	A	R404A	60	230V~50Hz	1200
	100	60	W	R404A	60	230V~50Hz	1200
KP 130/75	130	75	A	R404A	108	230V~50Hz	1350
	130	75	W	R404A	108	230V~50Hz	1350
KP 160/75	160	75	A	R404A	108	230V~50Hz	1700
	160	75	W	R404A	108	230V~50Hz	1700
KP 150 MOD.	150	-	A	R404A	108	230V~50Hz	1700
	150	-	W	R404A	108	230V~50Hz	1700
KP 300 MOD.	300	-	A	R404A	216	230V~50Hz	3500
	300	-	W	R404A	216	230V~50Hz	3500

DIMENSION TABLE

Mod.	MACHINE					MACHINE WITH PACKAGE				
	L	P	H	Foot	Net weight	L	P	H	Volume	Gross weight
	(mm)	(mm)	(mm)	(mm)	(Kg)	(mm)	(mm)	(mm)	(m^3)	(Kg)
KP21/5	350	450	575	0÷10	34	430	530	680	0,154	37
KP22/5										
KP25/6	360	450	585		35					38
KP28/7	390	465	605		38	466	536	710	0,18	42
KP30/10			685		40			790	0,2	44
KP44/15	500	585	685	0÷20	52	576	656	820	0,31	57
KP50/26			795		55			930	0,35	61
KP75/40	740	605	915	55÷85	72	816	676	1050	0,58	80
KP100/60			1015		87			1150	0,64	96
KP130/75	840	740	1070		108	916	816	1210	0,9	118
KP160/75					113					123
KP150	870	560	730	-	97	925	640	860	0,51	109
KP300	1255	595	860	-	153	1310	640	1015	0,9	170

ICE CUBE DIMENSIONS





Ice cube weigh = 17 g

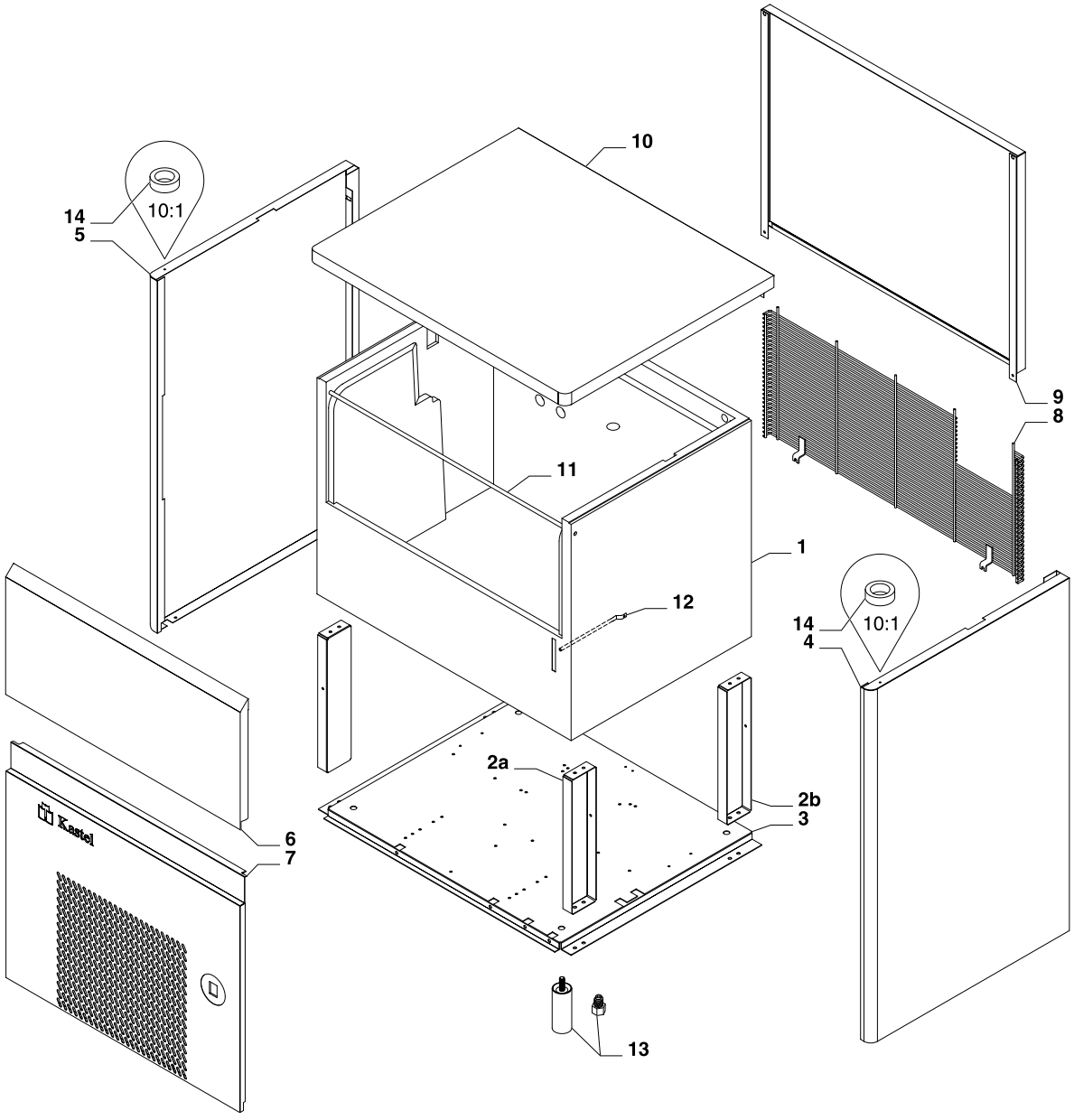
3 PROBLEM - REASON - SOLUTION

PROBLEM	REASON	SOLUTION
Switching on the machine, it doesn't start	No water supply	Check the water system
	No power supply	Check the electrical system
The ice maker effects the cycle but it doesn't produce ice	No refrigerant in the ice maker	Probable gas leak from the cooling system. Repear the leak
	The condensation cycle is not correctly effected	Air cooled system: - possible faulty fan motor - possible faulty pressure switch
		Water cooled system: - no water in the cooling system (see " the safety thermostat operates")
	Blow-by of the freon from the gas valve	Change gas valve
	Blow-by of water throught the water inlet valve	Change water inlet valve
	Low performance of the compressor	Change compressor
No water spraid during spaying period	Dirty or faulty water pump	First clean water pump, eventually change it
	Obstructed suntion filter of the pump	Check and clean the filter
	Faulty or obstructed water inlet valve	First clean the valve, eventually change it
	Faulty timer: it doesn't open the valve	Change timer
	Dirty or obstructed sprayers	Check the sparyers and clean them
	Water leak from the bin	Check bin seal
	The overflow gasket is damaged	Check and eventually change the gasket
The defrost is not correctly effected	The hot gas valve doesn't open when operated	Check electrical system
		Check the valva and eventually change it
	Faulty evaporator thermostat	Change the thermostat
	No water filled up in the bin	Check water flow in the evaporator
	The thermostat operates or it is faulty	Check if the bin thermostat has operated and eventually change it
	Blocked timer	Change the timer
Sheet of ice under the evaporator	Faulty evaporator thermostat	Change the evaporator thermostat
	Faulty or blocked timer	Change the timer

PROBLEM	REASON	SOLUTION
The ice makers works also when the bin is full	Faulty bin thermostat	Check and eventually change the bin thermostat
	Bin thermostat not calibrated	Check the thermostat and eventually calibrate it
The safety thermostat operates	No electrical supply	Check water system
	Blocked water valve	Check and eventually change the water valve
	Faulty pressure switch	Check and eventually change the pressure switch
	Scale in the water condenser	Clean the condenser with apposite anti scale products
The ice cubes are not complete	Low water level in the bin	See " no water spraid from sprayers"
	Evaporator thermostat not calibrated	Calibrate thermostat
	Not standard water jets	Check that each jet sprays directly without obstacles the center of the copper cups
	The ice maker is not in the correct horizontal position	Check the feet and place in the right horizontal position
	Small quantity of refrigerant in the cooling system	Repear eventula leaks and recharge the refrigerant
	See also "decreasing of production"	
Decreasing of production	High ambient temperature and/or small air circulation	Change place of installation of the ice maker or change ambient temperature
	Obstracted position of the machine (e.g. inside a furniture)	Change place of installation or permit air circulation
	Dirty air condenser	Clean the condenser with compressed air
	High water temperature	Check water temperature and change place of installation
	Bin full of water	Check drain pipe of the bin
	Small quantity of refrigerant in the cooling system	Repear eventula leaks and recharge the refrigerant
The circuit breaker operates	The compressor is short-circuited and/or grounded	Check and change the compressor
	The pump is short-circuited and/or grounded	Check and change the pump
	The hot gas valve is short-circuited and/or grounded	Check and change the hot gas valve
	The thermostats are grounded	Check and change the thermostat
	Other electrical componets are short-circuited and/or grounded	Check and change the component
	Circuit breaker differential is faulty	Check and change the component

4 PARTS SECTION

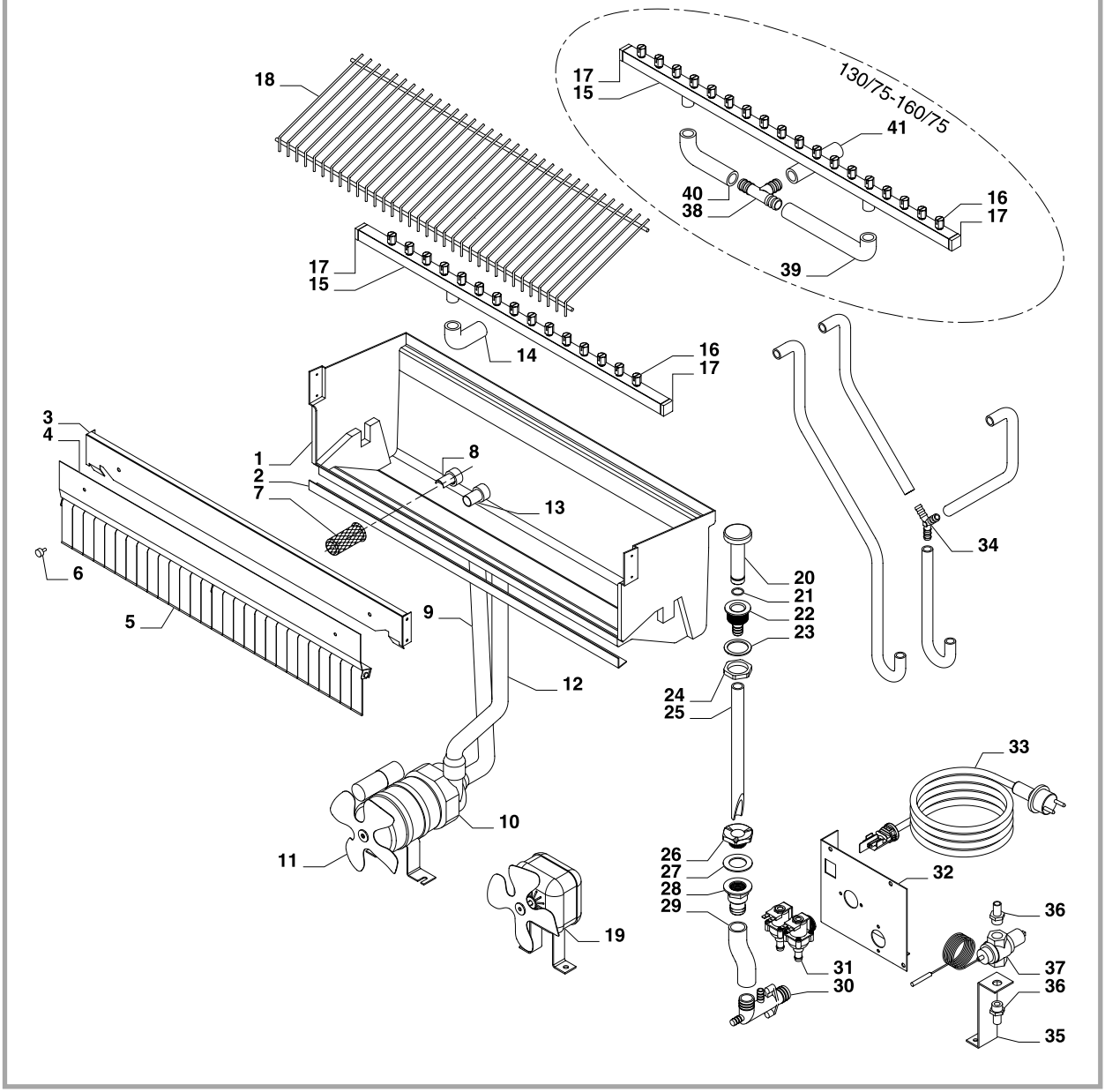
BODY



BODY

Pos.	Description	Note	21/5	22/5	25/6	28/7	30/10	44/15	50/26	75/40	100/60	130/75	160/75
1	Foamed body		K00997	K00997	K00997	K00471	K00470	K00469	K00468	K00466	K00467	K00473	
2a	Right angle		K00155	K00155	K00155	K00155	K00155	K00126	K00126	K00052	K00052	K00446	
2b	Left angle		K00704	K00704	K00704	K00704	K00704	K00703	K00703	K00702	K00702	K00706	
3	Base assembly		K00803	K00803	K00803	K00154	K00154	K00123	K00123	K00550	K00550	K00549	
4	Right panel		K00832	K00805	K00995	K01613	K01615	K01618	K01620	K01623	K01625	K01628	
5	Left panel		K00831	K00804	K00996	K01614	K01616	K01619	K01621	K01624	K01626	K01629	
6	Door		K00828	K00816	K00816	K00241	K00241	K00245	K00245	K00249	K00249	K00456	
7	Front panel		K00830	K00811	K00811	K00182	K00165	K00136	K00194	K00063	K00214	K00455	
8	Back grid		K00844	K00844	K00844	K00173	K00173	K00195	K00195	K00065	K00065	K00450	
9	Back panel		K00810	K00810	K00810	K00178	K00163	K00134	K00191	K00059	K00211	K00448	
10	Top assembly		K01369	K01393	K01651	K01658	K01658	K01659	K01659	K01656	K01656	K01657	
11	Door support		K00834	K00834	K00834	K00273	K00273	K00274	K00274	K00275	K00275	K00224	
12	Thermostat pocket		K00896	K00896	K00896	K00895	K00895	K00043	K00043	K00043	K00043	K00043	
13	Foot		K01086	K01086	K01086	K01086	K01086	K01574	K01574	K01341	K01341	K01341	
14	Bush		K01148	K01148	K01148	K01148	K01148	K01148	K01148	K01148	K01148	K01148	

WATERWORKS



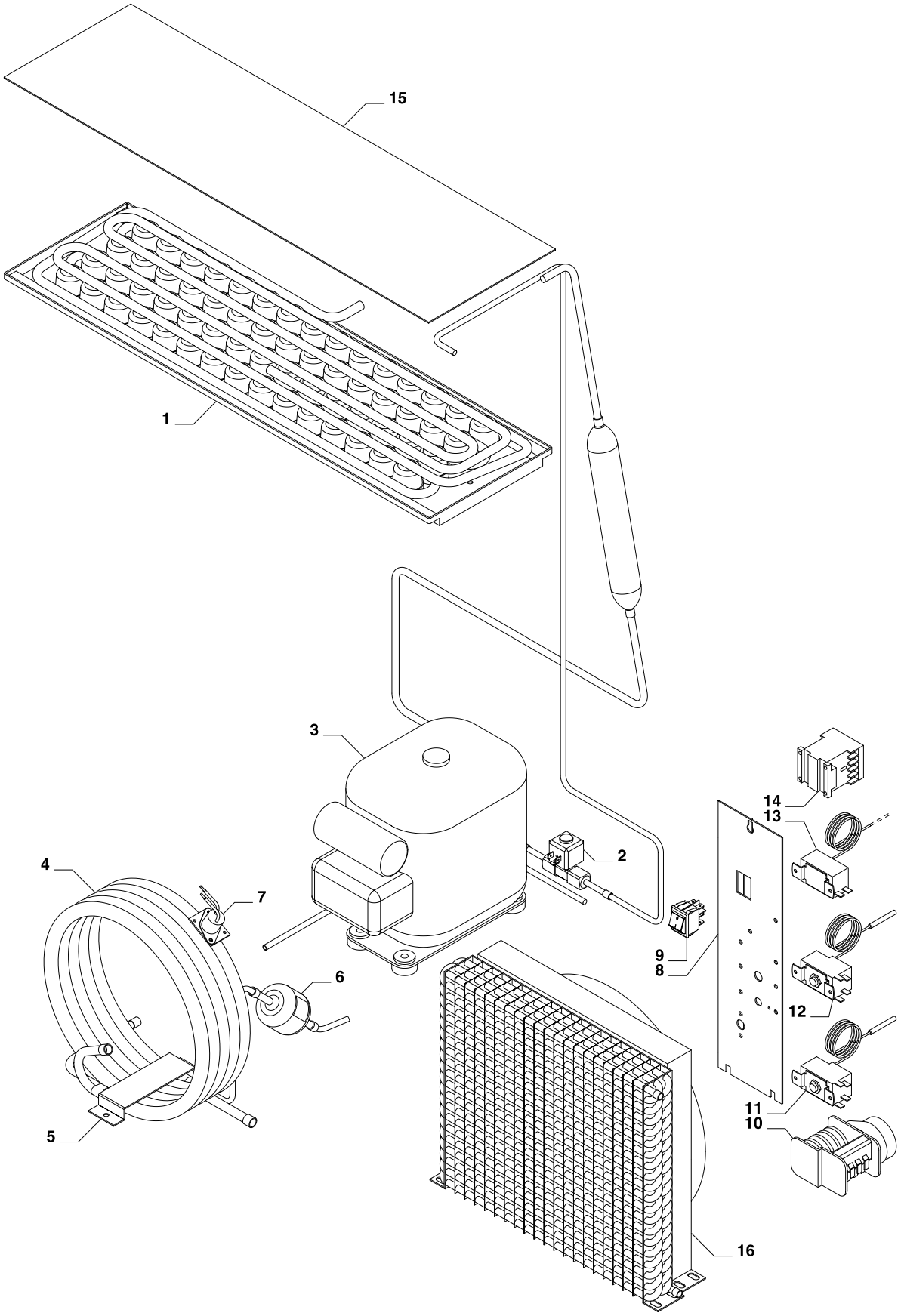
Pos.	Description	Note	21/5	22/5	25/6	28/7	30/10	44/15	50/26	75/40	100/60	130/75	160/75
1	Tank		K00800	K00800	K00800	K00149	K00149	K00144	K00144	K00045	K00045	K00300	K00300
2	Tank support		/	/	/	K00152	K00152	K00121	K00121	K00036	K00036	K00439	K00439
3	Evaporator support		K00817	K00817	K00817	K00151	K00151	K00120	K00120	K00041	K00041	K00320	K00320
4	Flag support assembly		K00826	K00826	K00826	K00225	K00225	K00653	K00653	K00556	K00556	K00227	K00227
5	Flag		K00008	K00008	K00008	K00008	K00008	K00008	K00008	K00008	K00008	K00008	K00008
6	Pawl		K00013	K00013	K00013	K00013	K00013	K00013	K00013	K00013	K00013	K00013	K00013
7	Suction filter		K00012	K00012	K00012	K00012	K00012	K00012	K00012	K00012	K00012	K00012	K00012
8	Suction ring		K00058	K00058	K00058	K00058	K00058	K00058	K00058	K00058	K00058	K00058	K00058
9	Suction pipe		K00823	K00823	K00823	K00185	K00142	K00142	K00198	K00072	K00218	K00218	K00218
10	Pump assembly	W	K01530	K01530	K01530	K00553	K00553	K00553	K00553	K00553	K00553	K01164	K01164
		A				K01302	K01302						

WATERWORKS

Pos.	Description	Note	21/5	22/5	25/6	28/7	30/10	44/15	50/26	75/40	100/60	130/75	160/75
11	Fan	W	/	/	/	K01023	K01023	K01023	K01023	K01023	K01023	K01023	K01023
		A				K01301	K01301						
12	Inlet pipe		K00824	K00824	K00824	K00184	K00141	K00141	K00197	K00109	K00217	K00217	K00217
13	Inlet ring		K00057	K00057	K00057	K00057	K00057	K00057	K00057	K00057	K00057	K00057	K00057
14	Bar pipe		K00048	K00048	K00048	K00048	K00048	K00048	K00048	K00048	K00048	/	/
15	Sprayers bar assembly		K00825	K00825	K00825	K00171	K00171	K00133	K00133	K00047	K00047	K00316	K00316
16	Sprayers		K00220	K00220	K00220	K00220	K00220	K00220	K00220	K00220	K00220	K00220	K00220
17	Plug		K00527	K00527	K00527	K00527	K00527	K00527	K00527	K00527	K00527	K00527	K00527
18	Chute		K00820	K00820	K00820	K00157	K00157	K00124	K00124	K00024	K00024	K00334	K00334
19	Fan motor assembly	W	K01083	K01083	K01083	/	/	/	/	K01083	K01083	K01083	K01083
		A	K01380	K01380	K01380	/	/	/	/	/	/	/	/
20	Overflow assembly		K01317	K01317	K01317	K01317	K01317	K01317	K01317	K01317	K01317	K01317	K01317
21	Gasket		K01125	K01125	K01125	K01125	K01125	K01125	K01125	K01125	K01125	K01125	K01125
22	Overflow drain		K00006	K00006	K00006	K00006	K00006	K00006	K00006	K00006	K00006	K00006	K00006
23	Gasket		K00536	K00536	K00536	K00536	K00536	K00536	K00536	K00536	K00536	K00536	K00536
24	Ring nut		K01126	K01126	K01126	K01126	K01126	K01126	K01126	K01126	K01126	K01126	K01126
25	Overflow pipe		/	/	/	/	K00541	K00542	K00543	K00540	K00544	K00545	K00545
26	Drain screw nut		K00004	K00004	K00004	K00004	K00004	K00004	K00004	K00004	K00004	K00004	K00004
27	Gasket		K00003	K00003	K00003	K00003	K00003	K00003	K00003	K00003	K00003	K00003	K00003
28	Drain stub pipe		K00039	K00039	K00039	K00039	K00039	K00039	K00039	K00039	K00039	K00039	K00039
29	Drain pipe		K00110	K00110	K00110	K00110	K00110	K00110	K00110	K00110	K00110	K00110	K00110
30	Nipple water outlet	W	K00578	K00578	K00578	K00578	K00578	K00578	K00578	K00578	K00578	K00578	K00578
		A	K00001	K00001	K00001	K00001	K00001	K00001	K00001	K00001	K00001	K00001	K00001
31	Watervalve	W	K01045	K01045	K01045	K01045	K01045	K00204	K00204	K01322	K01322	K01195	K01046
		A	K01212	K01212	K01212	K01212	K01212	K01213	K01213	K01213	K01213	K01214	K01214
32	Hydrohelectrical support		K00822	K00822	K00822	K00030	K00030	K00030	K00030	K01146	K01146	K01146	K01146
33	Cable		K01324	K01324	K01324	K01324	K01324	K01324	K01324	K01324	K01324	K01324	K01324
34	Wye		/	/	/	/	/	/	/	K00010	K00010	K00010	K00010
35	Valve support	W	/	/	/	/	/	/	/	/	/	/	K00330
36	Nipple	W	/	/	/	/	/	/	/	/	/	/	K01160
37	Pressure valve	W	/	/	/	/	/	/	/	/	/	/	K00497
38	Union tee		/	/	/	/	/	/	/	/	/	K00230	K00230
39	Bar pipe		/	/	/	/	/	/	/	/	/	K00445	K00445
40	Bar pipe		/	/	/	/	/	/	/	/	/	K00444	K00444
41	Pipe		/	/	/	/	/	/	/	/	/	K00311	K00311

W: WATER **A**: AIR

COOLING SYSTEM



COOLING SYSTEM

Pos.	Description	Note	21/5	22/5	25/6	28/7	30/10	44/15	50/26	75/40	100/60	130/75	160/75
1	Evaporator		K00145	K00145	K00145	K00145		K00139	K00139	K00138	K00138	K00332	K00332
2	Hot gas valve		K01531	K01531	K01531	K01531		K01531	K01531	K01531	K01531	K01532	K01532
3	Compressor		K00200	K00200	K00200	K01186		K00202	K00085	K00085	K00206	K00475	K00476
4	Water condenser ass.	W	K00278	K00278	K00278	K00112		K00147	K00147	K00017	K00017	K00333	K00333
5	Condenser support	W	K00279	K00279	K00279	K00113		K00146	K00146	K00029	K00029	K00335	K00335
6	Gas filter		K00199	K00199	K00199	K00199		K00199	K00199	K00081	K00081	K00478	K00478
7	Safety thermostat	W	K00076	K00076	K00076	K00076		K00076	K00076	K00076	K00076	K00076	K00076
8	Electric panel		K00808	K00808	K00808	K00119		K00119	K00119	K00049	K00049	K00049	K00049
9	On-off switch		K00082	K00082	K00082	K00082		K00082	K00082	K00082	K00082	K00082	K00082
10	Timer		K00075	K00075	K00075	K00075		K00075	K00075	K00075	K00075	K00075	K00257
11	Evaporator thermostat		K00080	K00080	K00080	K00080		K00080	K00080	K00080	K00080	K00080	K00080
12	Bin thermostat		K00079	K00079	K00079	K00079		K00079	K00079	K00079	K00079	K00079	K00079
13	Pressure switch		K00077	K00077	K00077	K00077		K00077	K00077	K00077	K00077	K00077	K00077
14	Contactor		/	/	/	/		/	/	/	/	/	K00500
15	Evaporator cover		K00150	K00150	K00150	K00150		K00118	K00118	K00069	K00069	K00226	K00226
16	Air condenser ass.	A	K01223	K01223	K01223	K01665		K01225	K01225	K01313	K01314	K01314	K01315

W: WATER
A: AIR

5 ATTACHMENTS

USER MANUAL

INTRODUCTION

Thank you for choosing one of our products. We are certain that you will be satisfied of it and that it will fully meet your needs. Please read this manual carefully before using the product that you have bought.

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A GENERAL NOTICES

This manual must be considered integral part of the *"automatic ice-cube producer".*

This installation, use and maintenance manual must be kept in a safe, easily accessible place for the operator.
If the appliance is sold this manual must be transferred to the new user so that he can get to know installation procedures, operating methods and the use and maintenance notices regarding the appliance.
Before installing the appliance read carefully the notices and instructions contained in this manual.
The notices refer to safe installation, use and maintenance.

PROPER - IMPROPER USE

- Do not pull or push the appliance. Use appropriate lifting gear even for minor handling.
- The appliance must never be laid on its side or upturned.
- Never remove guards, protective panels or grates from the appliance.
- Never place or leave rags, jars or other objects on the appliance or in front of the ventilation grates.
- Open and close the door carefully, taking care not to slam it.
- Always remove the plug from the power socket before embarking on any cleaning or maintenance task.
- The "automatic ice-cube producer" is designed only to produce ice cubes using cold potable water. Any other used is deemed to be improper.
- Do not use the ice-cube container to cool or store food or drink. Placing objects in the container could obstruct the discharge, thereby causing the container to fill up with water that will then overflow in an uncontrolled manner during ice-cube production.
- Never obstruct the aspiration grates or heat dispersal ventilation grates because such obstructions not only impair operating efficiency and lower ice-cube production but could also seriously damage the appliance.

SAFE PRACTICE

When using this electrical appliance the operator must follow certain safe practices:

- never touch the appliance with wet or damp hands or feet or when you are barefoot on the floor;
- never use extensions in areas in which there is water (WCs, showers, saunas, etc)
- never pull the power cable to unplug the appliance from the mains supply,
- do not allow children or incompetent persons to use it.

In the event of faults or malfunctions the operator must:

- *Disconnect the appliance from the power supply* by turning the master switch that has been installed to position "0" and removing the plug from the relative power socket.
- *Shut off the stopcock.*
- *Do not carry out any repairs on the appliance.*
- *Contact your dealer,* who will be able to advise you on the Authorised Service Centre nearest to you.

Modifying or attempting to modify this appliance automatically voids all warranty rights.

Tampering with the appliance may jeopardise the operator and may cause to the appliance irreparable damage.

To ensure the efficiency and correct operation of the appliance, maintenance must be carried out by qualified persons who are trained in such tasks.

If faults arise we recommend to use only manufacturer's original spare parts.

DECOMMISSIONING

When the appliance can no longer be used it must be made 'inoperative'. To do so the operator must:

- disconnect the appliance from the mains power supply;
- cut the power cable off the appliance (after disconnecting it from the power supply).

If the appliance is placed in an accessible place before decommissioning, make sure that:

- the door is removed in order to ensure that a child's hands or parts of its body cannot be trapped in the appliance if the child should come into contact with the appliance whilst playing.

During dismantling and subsequent decommissioning make sure that:

- the refrigerating gases in the compressor are not dispersed in the environment (the gas does not harm the ozone layer);
- the oil contained in the compressor is not dispersed in the environment;
- the different materials that make up the appliance are sorted into categories so that they can be disposed of or recycled according to the regulations in force in the country in which the appliance was installed.

The manufacturer is not liable for any harm to persons, animals, property and the environment caused by incorrect installation.

B TECHNICAL IDENTIFICATION DATA

RATING PLATE:
The appliance has a rating plate that shows:
- the data identifying the manufacturer;
- the data identifying the machine (model and serial number)
- main technical data for use (voltage values and supply frequency).

WIRING INFORMATION:
The appliance has a wiring diagram (affixed by means of an adhesive sheet) that is affixed to the panel underneath the front grille. To access it for maintenance, switch off and unplug the appliance, open the top door, loosen the screws of the front grille and remove it.

NOISE:
The acoustic pressure generated by the ice-cube maker during normal operation is lower than 70dB(A).

C UNPACKING

After unpacking, make sure that:
- the appliance is undamaged and does not have faults or cracks, dents or damaged parts (if you have any doubts, DO NOT USE IT and do not hesitate to contact your dealer);
- all the parts of the packing (wooden pallet, cardboard, plastic bags and tape, expanded polystyrene, nails, etc) must be collected and disposed of properly; keep them out of the reach of children or irresponsible persons because they are potential sources of danger.

FITTING FEET AND LEVELLING
- Use lifting gear that is appropriate to the weight of the appliance to lift the appliance off the wooden pallet.
- Find the support feet supplied (Fig. 1 Part 1) and screw them into the seats on the base.
- Use the screws of the feet (Fig. 1 Part 1) and a spirit level to ensure that the appliance is perfectly levelled on both the vertical and horizontal planes.

D CONNECTION - INSTALLATION AND SUPPLIES

The installation must comply with the regulations in force in the place in which the appliance is installed in accordance with the manufacturer's instructions.

The installation must be carried out only by professionally qualified persons who are authorised to perform such tasks.

CONNECTIONS REQUIRED FOR OPERATION (Fig.2):
The appliance needs to be connected to the electric power, water supply and discharge.
The machine is connected by means of:
- electric plug (Part 1);
- socket with safety cutout switch (Part 2);
- potable water supply stopcock (Part 3);
- potable water supply pipe (Part 4);
- connection to water drip discharge pipe (Part 5).

PLACE OF INSTALLATION:
The appliance should not be positioned near radiators, cookers or near appliances that give off heat such as: dishwashers, coffee percolators, etc,

When positioning the appliance, make sure that:
- it is not exposed to direct sunlight;
- the ambient temperature is between 10°C and 35°C;
- it is not installed outside;
- it is not located in wet environments near sprays or jets of water;
- the distance from the side walls is at least 5 cm.

WIRING:
Before connecting the appliance to the power supply make sure that:
- the mains power supply is compatible with the rated voltage;
- the mains power supply installation is adequate for the maximum voltage absorbed by the appliance during the operating phase (see rating-plate values);
- the appliance is connected to a suitable earth (ground) system;

- a cutout switch is positioned upstream of the appliance's installation point (Fig. 2 Part 2) with an opening distance of the contacts that is at least 3 mm (in compliance with current safety regulations);
- if the replacement of the standard supplied plug is needed, this operation must be effected by professionally qualified personnel authorised to perform this task (Fig. 2 part 1);
- there are no voltage points or sharp edges on the appliance's power cable and also make sure that it is not crushed in any way.

The appliance's power plug (Fig. 2 part 1) must always be accessible to ensure that it can be rapidly removed if necessary.

WATER PIPES:
The connection to the mains water supply must be carried out by qualified personnel in compliance with the manufacturer's instructions.
Before connecting the appliance to the mains water supply make sure that:

- the mains water supply is for human consumption (potable cold water);
- the water is supplied at a temperature between 5 and 35 °C;
- operating pressure is between 0.1 MPa and 0.5 MPa (1-5bar);
- between the mains water supply and the appliance's supply pipe a stopcock is installed so that the water supply can be disconnected if required (Fig. 2 Part 3);
- a water softener is installed on the supply pipe if the water is hard;
- if there are solid elements (e.g. sand, etc) a mechanical filter is installed in a position that enables it to be inspected and cleaned as necessary.

The supply system and any accessory devices must comply with the relevant regulations and with the regulations in force in the country in which the appliance is installed.

Never cut off the water supply whilst the appliance is operating.

CONNECTING SUPPLY PIPE (Fig.3):
Identify the supply pipe and follow this procedure:

- insert the seal washers (Fig. 3 Part 4) into the two threaded nuts of the water supply pipe (Fig. 3 Part 2);
- screw on a threaded nut at the solenoid valve outlet located at the rear of the appliance without overtightening to prevent the risk of breakage of the joints;
- tighten the other threaded nut on the water supply stopcock (Fig. 3 Part 1).

CONNECTING DISCHARGE PIPE (Fig.3)
To connect the discharge pipe ensure that it is connected in an open trap.
Then fix the water discharge pipe (Fig. 3 Part 3) in the relevant seat on the rear part of the appliance, checking that:

- the discharge pipe (Fig. 3 Part 3) is flexible;
- the internal diameter is as requested;
- there is no pinching along the pipe;
- the pipe gradient is at least 15%.

E START-UP

CLEANING INTERNAL PARTS:

Before starting up, and before the machine is connected to the electric power supply, the internal parts should be washed.

WASHING: for washing operations, use washing-up detergent or water and vinegar solution. Do not use abrasive detergents or powders that might damage the internal parts.

RINSING: After washing, rinse thoroughly with plenty of cold water. When starting up the appliance, remove the ice produced during the first cycles (see paragraph *"Cleaning and disinfecting ice-collection tray").*

START-UP OF PRODUCTION CYCLE:
When starting up the appliance for the first time or starting up after a long period of inactivity:

- Pour some potable water into the bowl inside using a bottle, access through the flags (Fig. 4 Part 1);
- open the tap (Fig. 2 Part 3) of the water supply pipe;
- plug in and switch on (Fig. 2 Part 2);

- press the switch to power up the appliance (Fig. 5 Part1). When the appliance starts the switch will light up.

STOPPING PRODUCTION

As soon as the appliance is started up ice is produced continuously until the ice-cube chamber has been filled up. Inside the collection cell there is a 'level' probe (Fig. 6 Part 1) that stops production as soon as it makes contact with the ice cubes.

ICE-CUBE DISCHARGE

The work cycle will resume automatically as soon as the operator picks up the ice cubes from the collection cell so that the level probe is no longer obstructed.

F ROUTINE MAINTENANCE

The operator must perform simple regular cleaning and routine maintenance tasks:

- cleaning and sterilisation of production cell and ice-cube collection tray (see Figs. 8 and 9);
- cleaning water-intake pipe filter (see Fig. 7 Part 2).

Cleaning must be carried out by authorised personnel trained in such tasks and wearing protective gloves.

Before embarking on cleaning operations the operator must make the appliance completely safe by disconnecting the power and water supplies.

The finned condenser of models with air condensation must be kept clean.

CLEANING PRODUCTION CELL AND ICE-COLLECTING TRAY

For cleaning, use washing-up detergent or water and vinegar solution. Do not use abrasive detergents or powers that might damage the internal parts. To eliminate any incrustation, use a sponge or brush with soft plastic bristles.

To clean the production cell and the ice-cube collection tray, dismantle and thoroughly clean all the individual parts that make it up with detergent and running water.

- Open the tray access door;
- loosen and remove the two pawl (Fig. 8 Part 1) fixing the flag support assembly (Fig. 8 Part 2); remove the panel and clean it;
- remove the flags from the panel (Fig. 8 Part 3), the chute (Fig. 8 Part 4) and clean everything thoroughly;
- remove the sprayers bar ass. (Fig. 9 Part 5) from the seat, remove the side plugs (Fig. 9 Part 6) and clean the bar and relative sprayers with a jet of running water;
- remove the overflow (Fig. 9 Part 7) wait for the excess water to flow out of the tray and use a sponge to remove any residues from the bottom of the tank and wash with clean water;
- remove the suction filter (Fig. 9 Part 8) from the pump's aspiration pipe and clean it thoroughly under a jet of running water;
- finally, thoroughly clean the ice bin (Fig. 8 Part 9) and the evaporator (Fig. 8 Part 10), than rinse thoroughly with clean running water;
- refit all parts by following the disassembly procedure in the reverse order.

SANITIZING THE PRODUCTION CELL AND ICE COLLECTING TRAY

- Disassemble the machine various parts (flags support assembly (Fig. 8 Part. 2), pawls (Fig. 8 Part. 1), ice cubes chute (Fig. 8 Part. 4), evaporator cover (Fig. 8 Part. 11), sprayers bar ass. (Fig. 9 Part. 5), suction filter (Fig. 9 Part. 8), bar pipe (Fig. 9 Part. 12), overflow (Fig. 9 Part. 7), overflow pipe (Fig. 9 Part. 13) and door(Fig. 8 Part. 14).
- dip all machine parts into the sanitizing solution (230 mg/L sodium hypochlorite in water);
- leave them soaking for 20-30 minutes;
- brush the sanitizing solution all over the evaporator (Fig. 8 Part. 10)
- clean the fixed machine parts (ice bin (Fig. 8 Part. 9) and water tank (Fig. 9 Part. 15) with the sanitizing solution;
- reassemble all machine parts;
- pour the sanitizing solution into the water tank and carry out 5 working cycles of 5 minutes each, at 5 minutes interval, letting the solution run through the whole machine (taking care to shut off water at the mains first);
- drain the sanitizing solution off the machine;
- disassemble once again all removable parts and rinse them with clean water;

- rinse also evaporator (Fig. 8 Part. 10), ice bin (Fig. 8 Part. 9) and water tank (Fig. 9 Part. 15);
- go through a couple of working cycles with clean water before you start making ice.

CLEANING SOLENOID-VALVE FILTER

The operator must clean the filter on the water supply pipe (Fig. 7 part 2) every two months in accordance with these instructions:

- switch off the appliance (Fig. 2 Part 2) and then unplug it;
- shut off the stopcock (Fig. 3 Part 1);
- loosen the threaded nut of the water supply pipe (Fig. 7 Part 1);
- identify and extract the filter (Fig. 7 Part 2) from its seat without damaging the water-supply pipe fitting;
- wash the filter under a jet of running water to remove all residual dirt;
- check the wear of the filter and replace it if it is damaged or in poor condition;
- refit the filter and the water supply pipe but do not overtighten;
- at the end of the operation, restore the appliance's power and water supplies.

If the appliance is **NOT GOING TO BE USED** for some time, for example during the winter:

- switch off the appliance (Fig. 2 Part 2) and unplug it;
- shut off the stopcock (Fig. 3 Part 1);
- clean and disinfect the appliance thoroughly (see routine maintenance operations);
- empty the pump body by blowing compressed air through the water supply pipe towards the sprayers.

G SPECIAL MAINTENANCE

Special and routine maintenance must be carried out only by qualified persons on the customer's premises or at the Authorised Service Centres.
We recommend that you ask your dealer for a 'Routine Maintenance Agreement', which will comprise:

- condenser cleaning (standard models):
- condenser cleaning (models with air condensation);
- cleaning filter in water supply pipe;
- cleaning production cell and ice-cube collection tray;
- checking gas in cooling system;
- checking operating cycle;
- complete disinfecting of appliance.

H TROUBLESHOOTING

If the appliance does not start up or if ice production is interrupted, before contacting the Authorised Service Centre make the following checks:

- **electrical system:** make sure that the plug has been correctly inserted and that the switch (Fig. 2 Part 2) and the pushbutton (Fig. 5 Part 1) are both in the 'ON' position
- **water system:** make sure that the stopcock (Fig. 2 Part 3) is 'OPEN';
- **air or water temperature:** should be within range indicated in point D;
- **excessive noise:** check for contact with furniture or sheet metal that could cause noise or vibrations;
- **water leaks:** make sure that the discharge is not blocked, the water-supply pipes are correctly connected and that they are not crushed or damaged;
- **the water solenoid valve filter:** make sure also that is not clogged up;
- **the sprayers:** make sure that they are not clogged up with scale or impurities.

If problems persist, make the appliance completely safe by disconnecting electric and water supplies and contact the nearest Authorised Service Centre. Quote the product model shown on the rating plate.

USER MANUAL

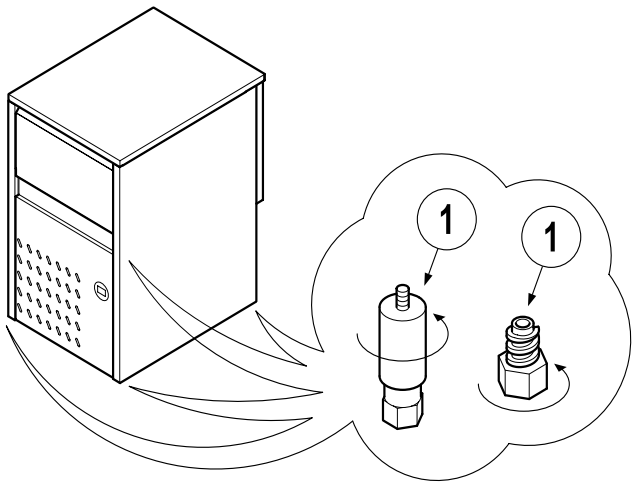


FIG. 1

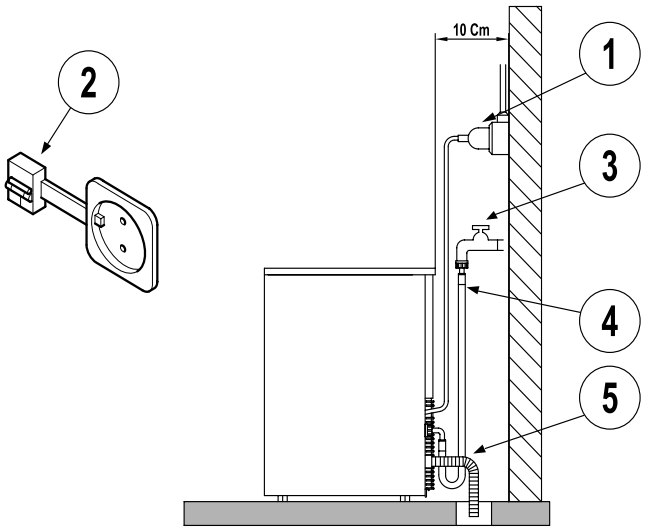


FIG. 2

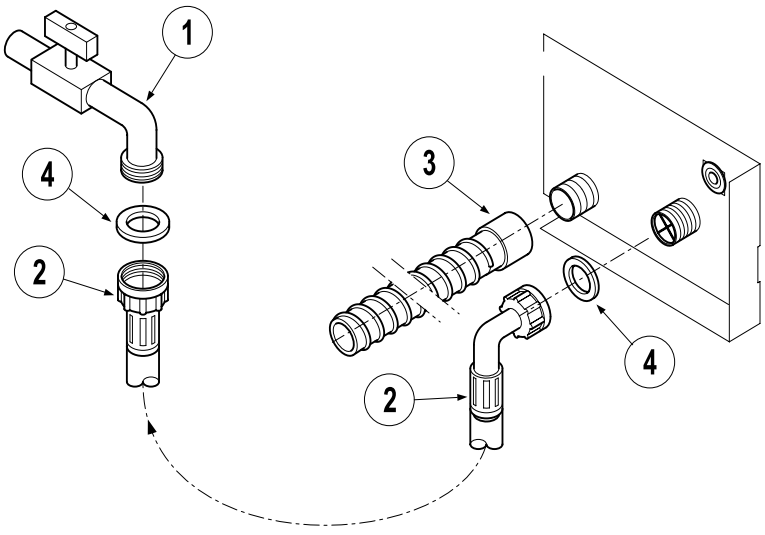


FIG. 3

USER MANUAL

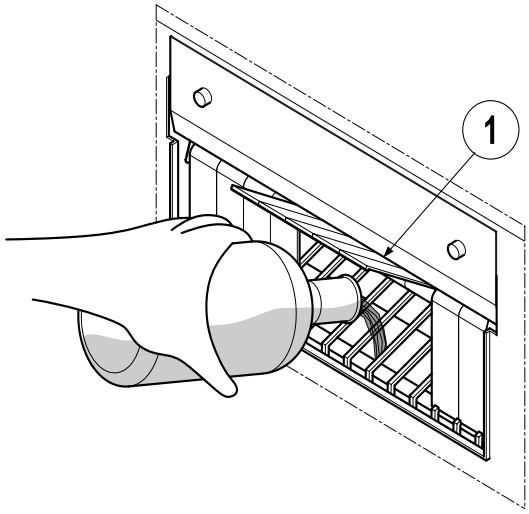


FIG. 4

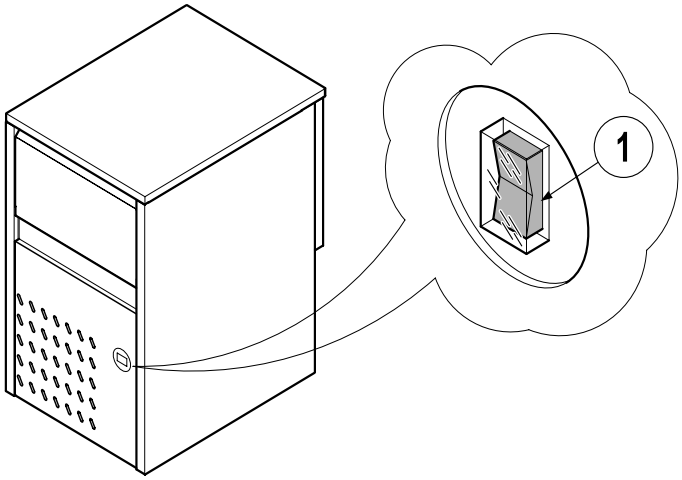


FIG. 5

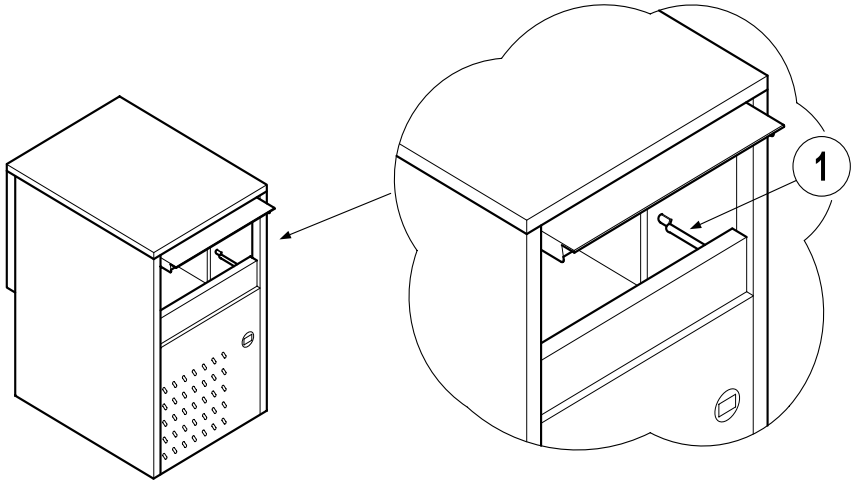


FIG. 6

USER MANUAL

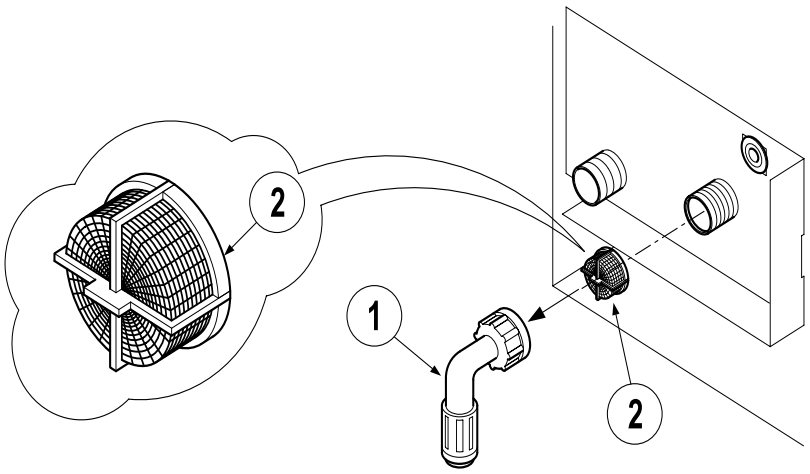


FIG. 7

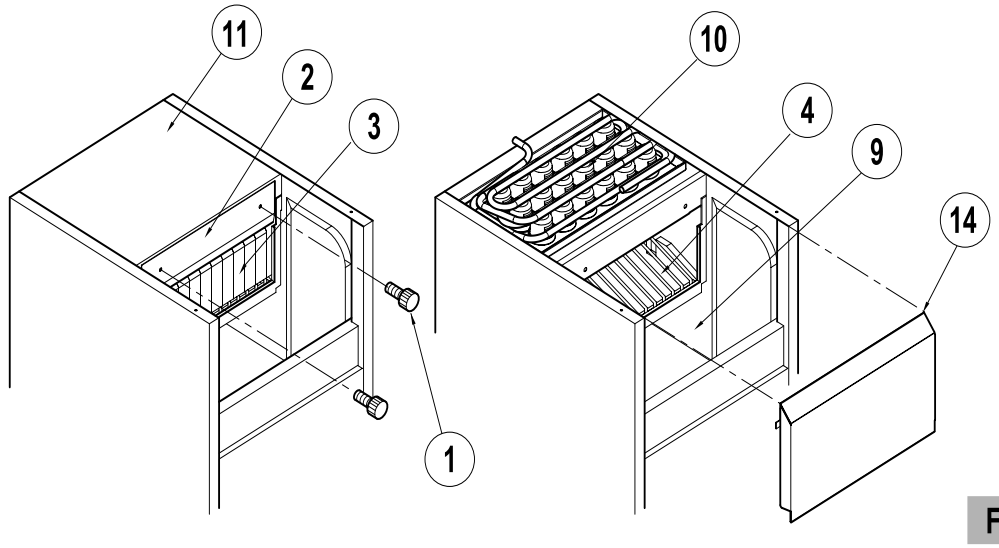


FIG. 8

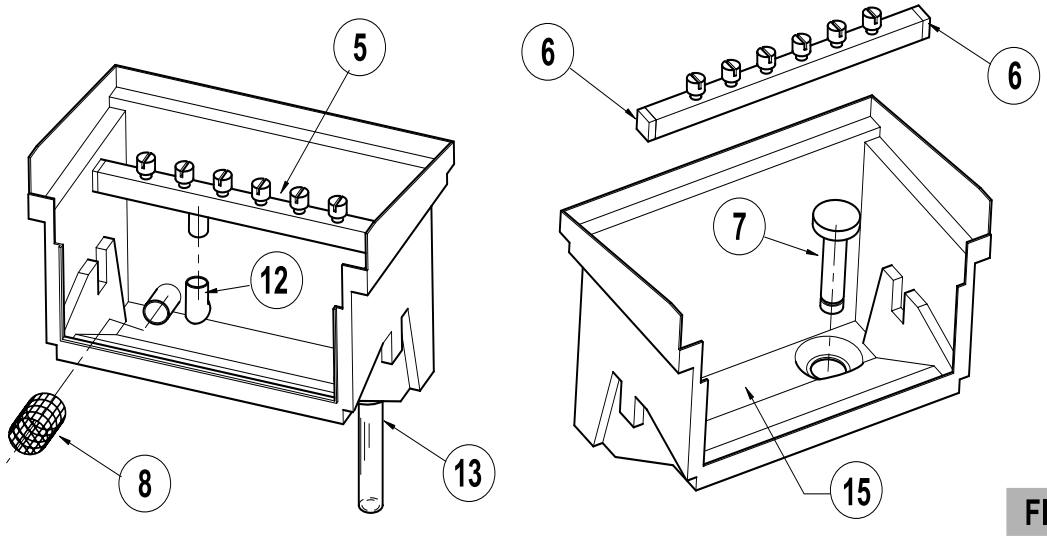
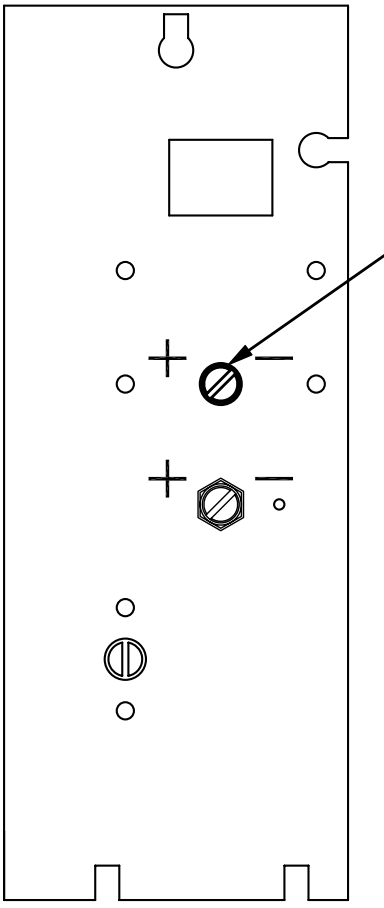
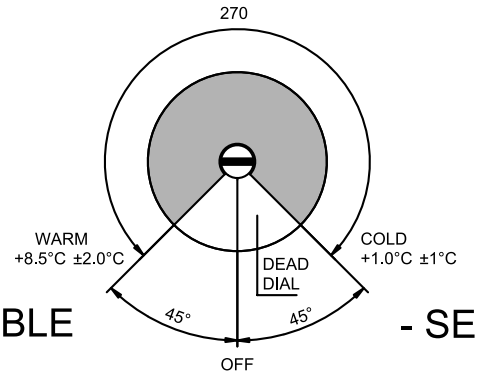


FIG. 9

BIN THERMOSTAT REGULATION

Thermostat to be adjusted if the ice maker does not stop when the bin is filled with ice cubes, or does not start at low temperatures.



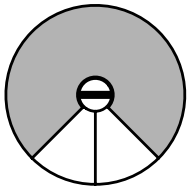


+ SENSIBLE

- SENSIBLE

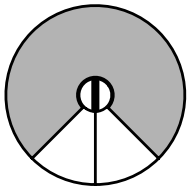
FOR KP 21/5 - KP 22/5 - KP 25/6 - KP 28/7

Adjust the thermostat to maximum sensitivity (anticlockwise), then go back to the notch first horizontal position.



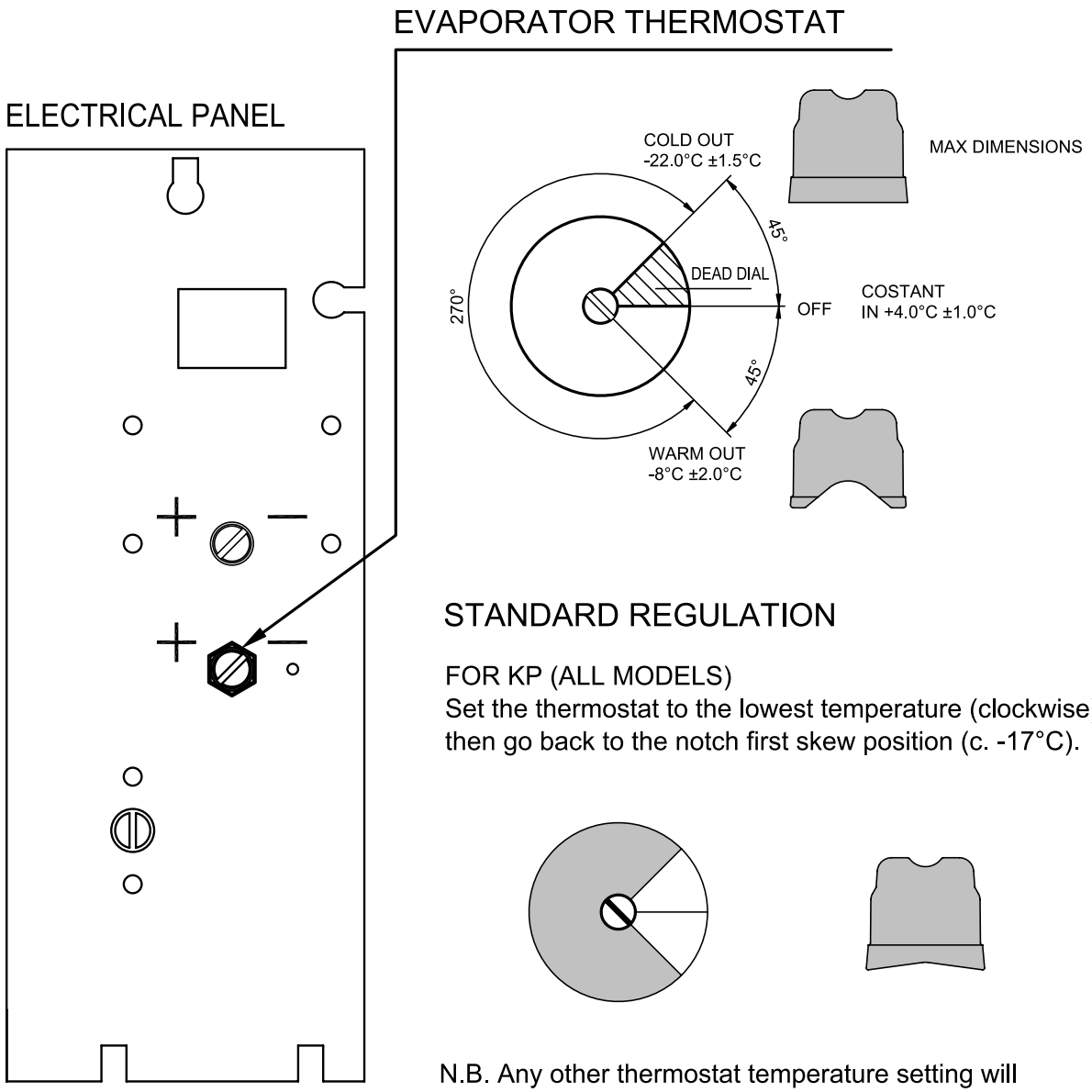
FOR ALL OTHER MODELS

Adjust the thermostat to maximum sensitivity (anticlockwise), then go back to the notch first vertical position.



EVAPORATOR THERMOSTAT ADJUSTMENT

Thermostat to be adjusted if ice cubes are not standard size

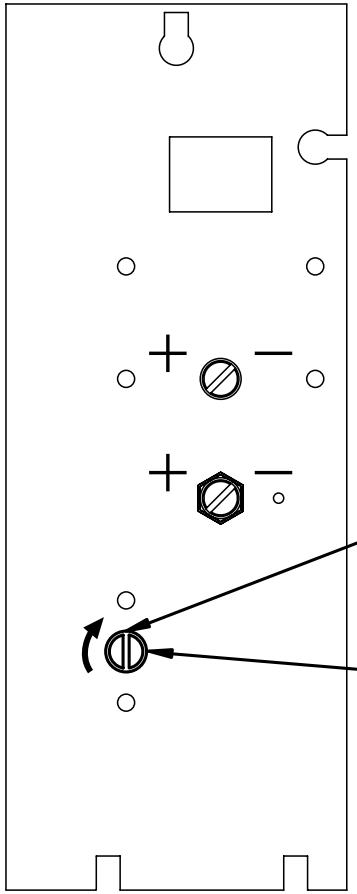


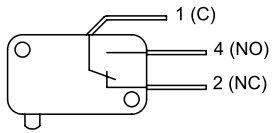
STANDARD REGULATION

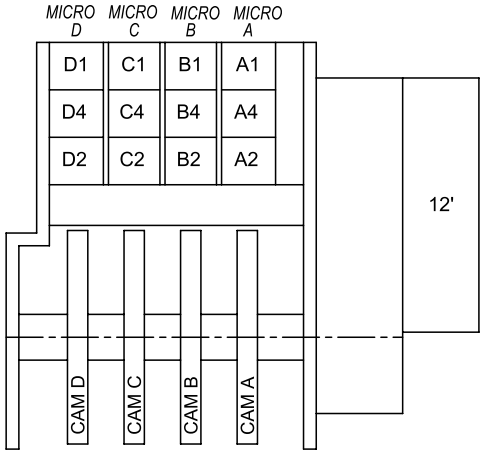
FOR KP (ALL MODELS)
Set the thermostat to the lowest temperature (clockwise), then go back to the notch first skew position (c. -17°C).

N.B. Any other thermostat temperature setting will change the duration of the ice making cycle.

ELECTRICAL PANNEL



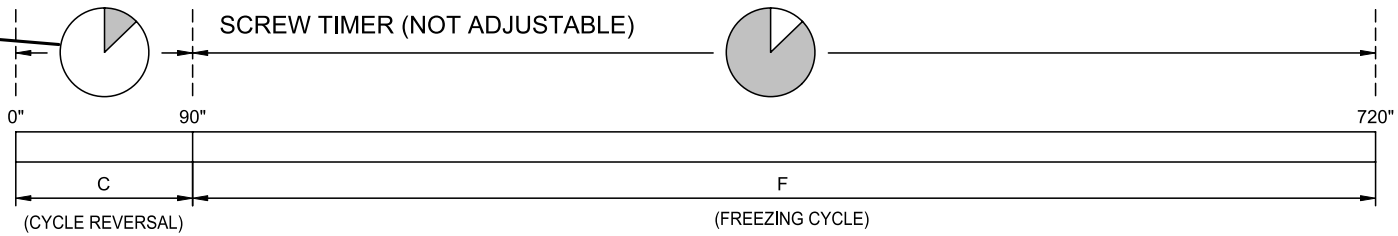




TIMER

(DETERMINE THE DURATION OF FREEZING CYCLE AND REVERSE CYCLE)

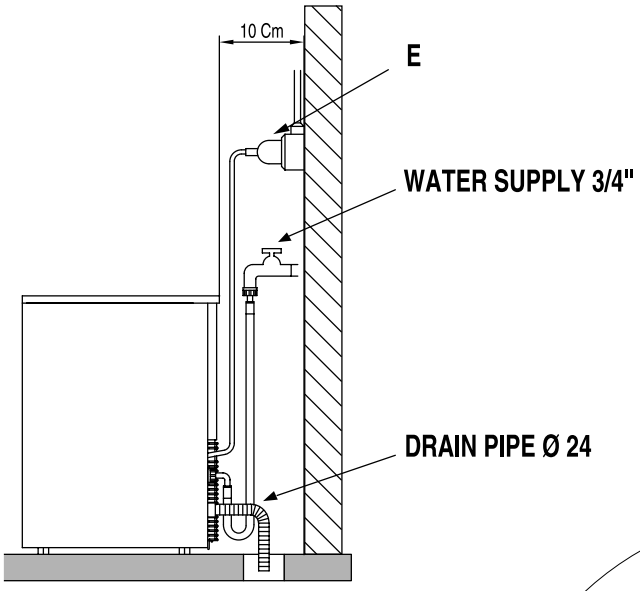
DETAIL TIMER'S CONNECTIONS: LETTER MEANS MICROS A-B-C-D.
NUMBERS MEANS THE FASTON OF THE RELEVANT MICRO (1-4-2).

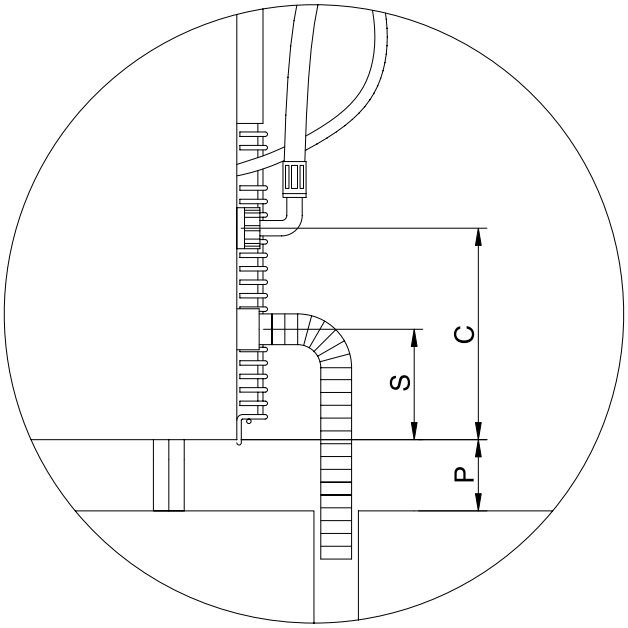


TIME DIAGRAM (CYCLE LENGTH=12').

THE TIME DIAGRAM SUMS UP THE VARIOUS SITUATIONS AS FOLLOWS:
C= THE TIMER ROTATES WHEN THE EVAPORATOR IS HOT
F= THE TIMER ROTATES WHEN THE EVAPORATOR IS COLD.

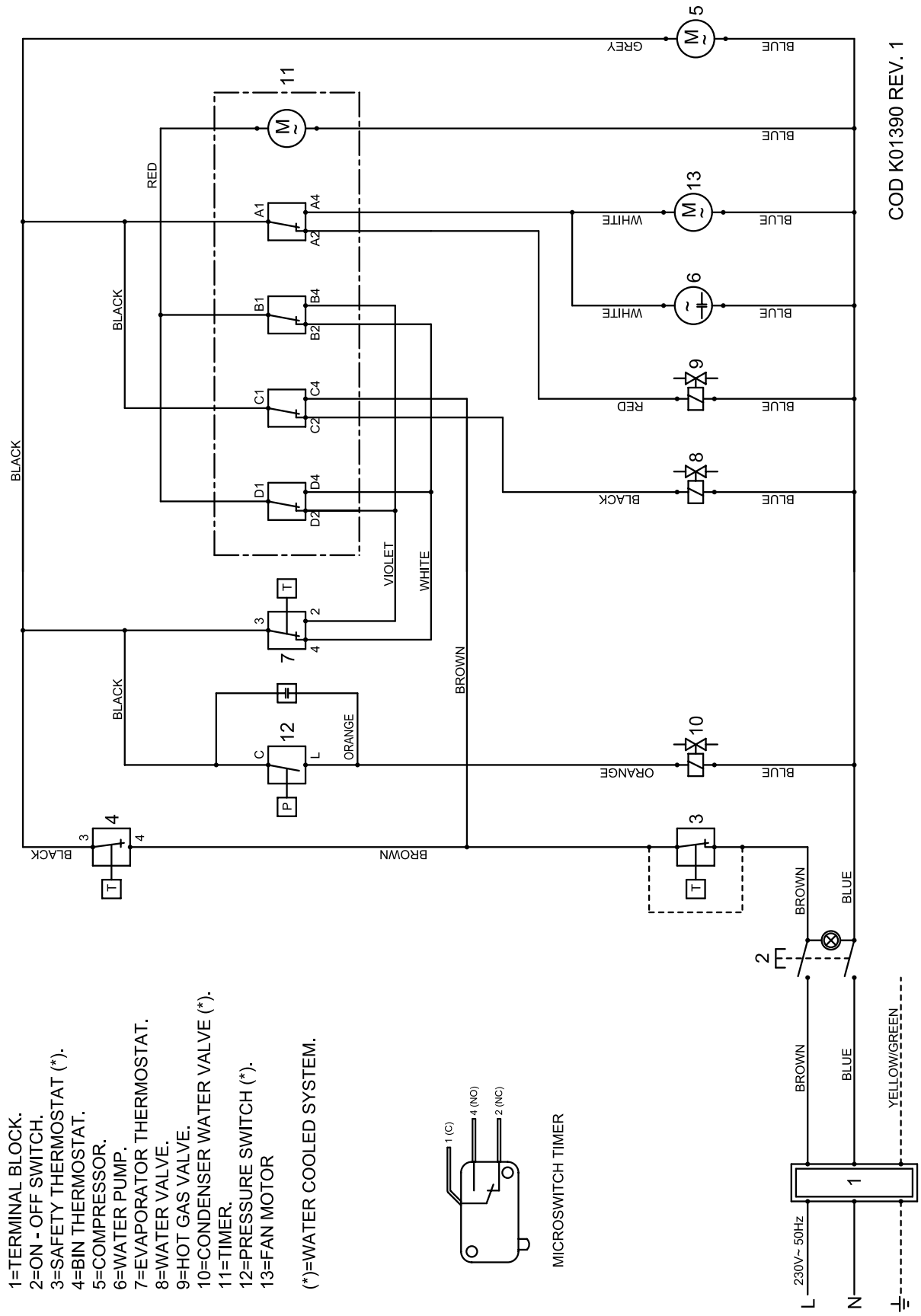
WATER SUPPLY AND ELECTRICAL



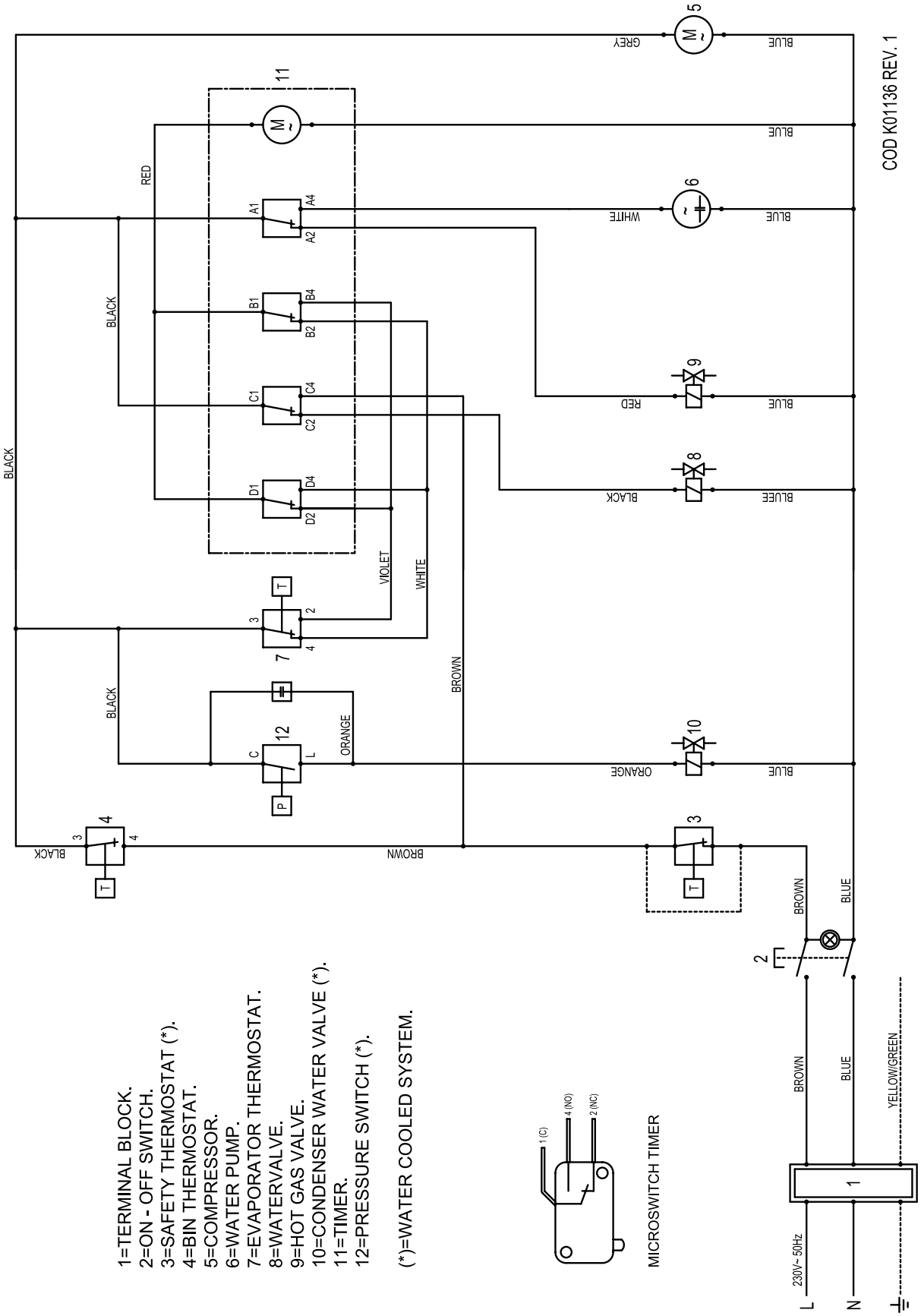


MOD.	DRAIN PIPE	WATER	FEET
	S	C	P
KP 21/5	125	170	0-10
KP 22/5	125	170	0-10
KP 25/6	125	170	0-10
KP 28/7	125	170	0-20
KP 30/10	125	170	0-20
KP 44/15	145	190	0-20
KP 50/26	145	190	0-20
KP 75/40	235	280	55-85
KP 100/60	235	280	55-85
KP 130/75	235	280	55-85
KP 160/75	235	280	55-85

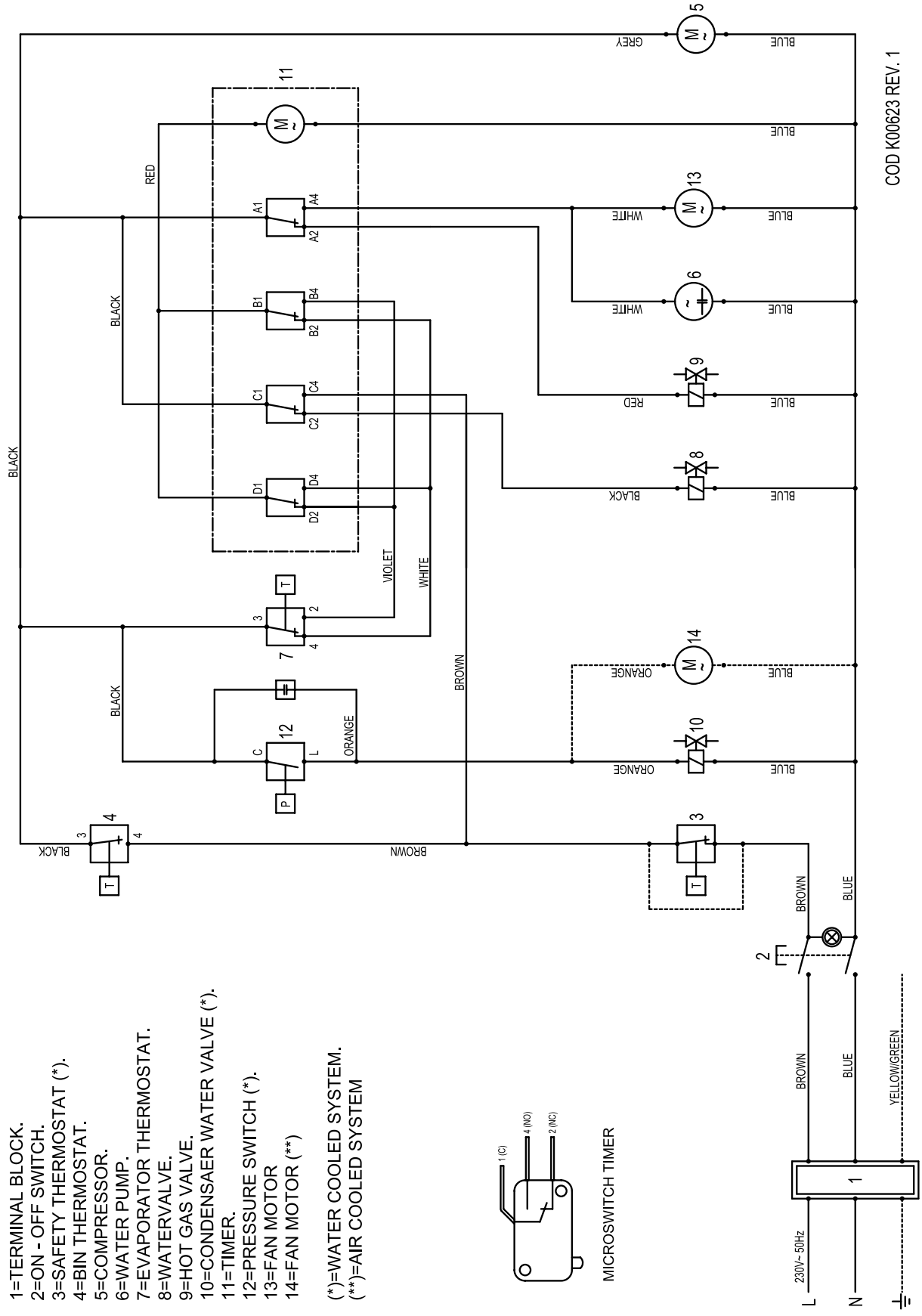
ELECTRICAL PANNEL (KP 21)



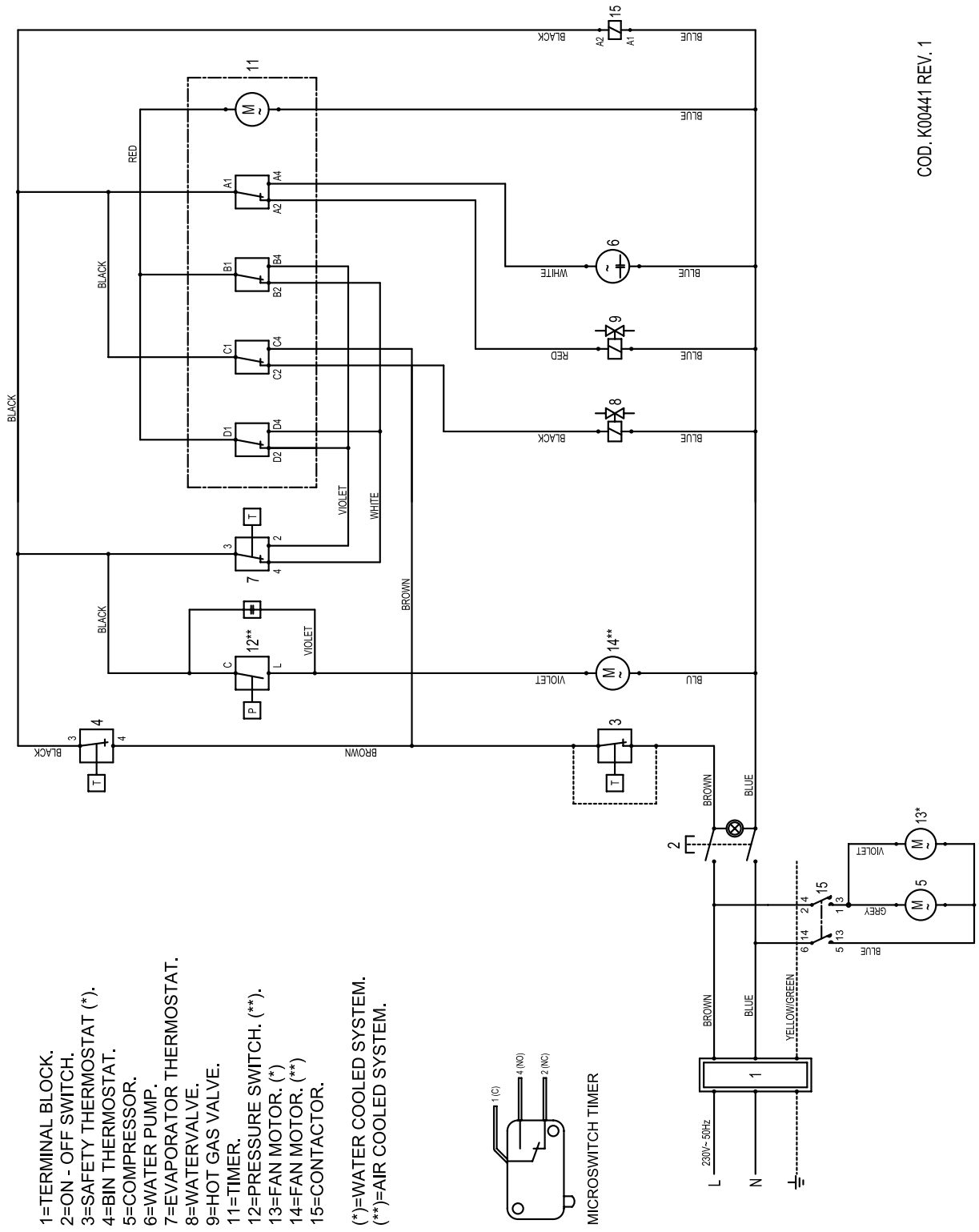
ELECTRICAL PANNEL (FROM KP28 TO KP50)



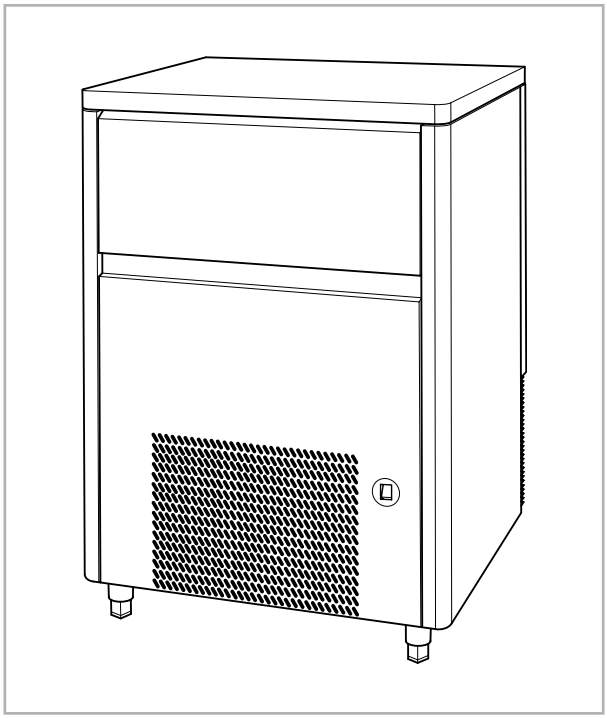
ELECTRICAL PANNEL (FROM KP75 TO KP130)



ELECTRICAL PANNEL (KP160)



NOTES



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