USER MANUAL

MEDIKAL IQ R290 ELECTRONIC SERIES

TEMPLATES:

MEDIKAL 50 IQ

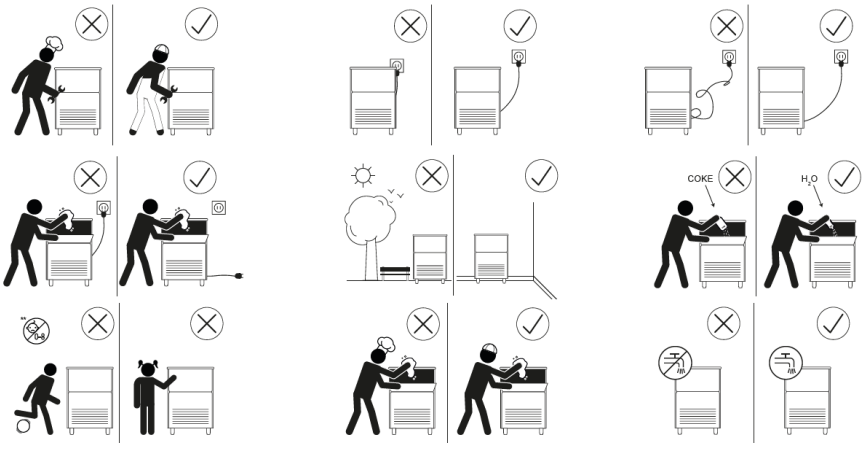
MEDIKAL 90 IQ

PLEASE READ THIS MANUAL CAREFULLY, ESPECIALLY THE INSTALLATION AND MAINTENANCE SECTIONS. INSTALLATION OF THIS APPLIANCE MUST BE CARRIED OUT BY THE SERVICE DEPARTMENT.

This manual is part of the product. Read carefully this document for the correct use and maintenance of the equipment. It is important to keep them for future reference.

WARNINGS

⚠ This appliance is intended to be used in professional and similar applications.
⚠ Installation of this appliance must be carried out by the Technical Assistance Service.
⚠ The plug should be in an accessible location.
⚠ When positioning the appliance, ensure that the power cord is not pinched or damaged.
⚠ Do not place multiple portable outlets or portable power supplies on the back of the appliance.
⚠ ALWAYS disconnect the machine from electricity BEFORE proceeding with any cleaning or maintenance operation.
⚠ Any modification that may be necessary to the electrical installation for the perfect connection of the machine must be carried out exclusively by professionally qualified and authorized personnel.
⚠ Any use of the ice-making product other than to produce ice, using potable water, is considered inappropriate.
⚠ Modifying or attempting to modify this appliance, in addition to voiding any form of warranty, is extremely dangerous.
⚠ This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given proper supervision or training concerning the safe use of the appliance and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance must not be carried out by children without supervision.
⚠ Unsupervised children should not play with the device. It should not be used outdoors or exposed to rain.
⚠ Only connect to the drinking water mains.
⚠ The machine must be connected using the power cord supplied with the machine. It is not intended to be connected to a fixed channel.
⚠ The machine must always be raised to make small movements. NEVER push or drag.
⚠ The machine can be easily moved for maintenance, so make sure there are no elements obstructing movement.
⚠ This machine must be grounded to avoid accidents or damage to the machine itself. This machine must be grounded in accordance with local or national regulations and regulations, as applicable.
Under no circumstances will the manufacturer be liable for damage caused by the lack of earthing in the installation.
This equipment must be installed with adequate backflow protection to comply with applicable U.S. federal, state, and local codes.
⚠ The weighted sound pressure level is less than 70 dB(A).



⚠ Do not operate equipment that has been misused, abused, neglected, damaged, altered, or modified from its original manufacturing specifications.

⚠ In order to reduce flammability hazards, installation of this appliance only needs to be carried out by a suitably qualified person.

⚠ If the equipment is used in a manner other than that specified in this manual, the protection provided by the equipment may be compromised.

WARNING: Handling the machine by unqualified personnel can not only cause serious damage to the machine, but is also dangerous. In the event of a breakdown, contact your dealer. We always recommend the use of original spare parts.

The company reserves the right to modify the specifications and design without prior notice.

PLEASE NOTE THAT THE WARRANTY DOES NOT INCLUDE MAINTENANCE OR CLEANING OF THE MACHINE AND THEREFORE THE INSTALLER WILL BILL THEM SEPARATELY.

This sign indicates that the machine should only be connected to the potable water supply.

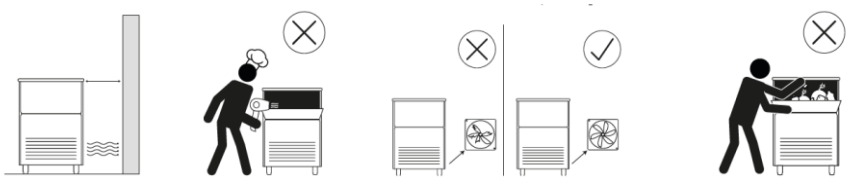
This symbol indicates "Fire Hazard/Flammable Materials" due to the use of flammable refrigerants.

Before turning on the equipment, consult to the manual.

The appliance uses flammable refrigerant (propane), stored in the unit's refrigeration system.

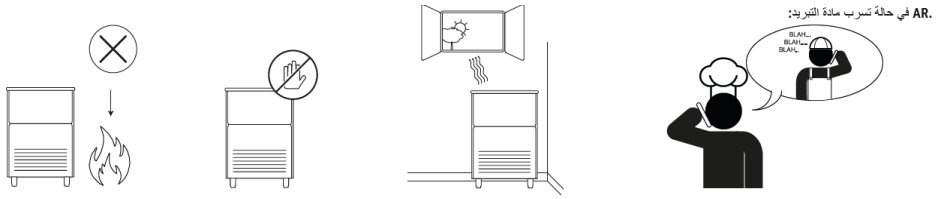
For this reason, the following warnings should be considered:

⚠ Keep the openings intended for the ventilation of the room or the built-in furniture unobstructed.
⚠ Do not use mechanical devices or other means to speed up defrosting, only those recommended by the manufacturer.
⚠ Do not damage the cooling circuit. (NOTE: The warning is only applicable to appliances with user-accessible cooling circuits.)
⚠ Do not use electrical devices inside the food compartments unless recommended by the manufacturer.
⚠ Explosive substances, such as aerosols with flammable propellant, must not be stored in this appliance.



In the event of a refrigerant leak:

⚠ Do not generate flames in the vicinity of the appliance.
⚠ Do not turn on/off switches or plug/unplug in the appliance area.
⚠ Do not use a direct flame.
⚠ Immediately ventilate the appliance area by opening doors and windows.
⚠ Call an authorized service center.



Getting rid of the ice maker: The company encourages following each country's regulations regarding the environmentally friendly disposal of electrical and electronic equipment like this. The user who wishes to dispose of this equipment should contact the manufacturer and follow the appropriate collection method for subsequent treatments.

SAFETY WARNINGS FOR UV-O3 KIT

THE UV-O3 KIT, CONSISTING OF AN OZONE GENERATOR AND ULTRAVIOLET LIGHT, INTEGRATED INTO THE MACHINE ENSURES ABSOLUTE PURITY AND HYGIENE.

WARNING: Ozone can pose risks to human health if not properly installed, operated, or maintained.

WARNING: UV radiation, on prolonged exposure, can cause damage to the eyes and skin. Do not use damaged equipment.

WARNING: Replacement or maintenance of the O3-KIT must be performed by an authorized and specialized technician. To do this, it is advisable to contact the local distributor or seller.

There is no risk of direct exposure to ultraviolet or ozone as soon as the kit is switched off immediately after the door opening is detected.

LIST OF POTENTIALLY TOXIC SUBSTANCES:

- R290 refrigerant gas → 90~110g in machine;
- Ozone → 30~50mg/h.

MAINTENANCE SAFETY WARNINGS

WARNING: Maintenance and cleaning operations, and malfunctions caused by their omission: These are not included in the warranty. Only if it is well maintained will the machine continue to produce good quality ice and be free from breakdowns. Maintenance and cleaning intervals depend on site water quality conditions.

CAUTION: Do not mix ice maker cleaners and disinfectant solutions.

WARNING: Wear rubber gloves and safety goggles when handling ice maker cleaner or disinfectant.

WARNING: Do not use means to speed up the defrosting or cleaning process other than those recommended by the manufacturer.

WARNING: The unit must always be switched off during maintenance/cleaning procedures by unplugging the power supply. If this is not possible due to the design of the appliance or its installation, provision must be made for disconnection with a locking system in the stand-alone position.

YOU SHOULD WEAR RUBBER GLOVES AND SAFETY GLASSES WHEN HANDLING A CLEANER OR ICE MACHINE SANITIZER.

THIS APPLIANCE MUST BE EARTHED.
THE MANUFACTURER WILL NOT BE HELD LIABLE FOR DAMAGE CAUSED BY THE FAILURE TO LAND THE INSTALLATION. SEE SECTION 4 OF THIS MANUAL

To ensure the efficiency of this machine and its correct operation, it is essential to follow the manufacturer's instructions, ESPECIALLY WITH REGARD TO MAINTENANCE AND CLEANING OPERATIONS, which in most cases must be carried out by qualified personnel.

ATTENTION:
Do not attempt to repair it yourself. The intervention of unqualified persons, in addition to being dangerous, can cause serious damage. In the event of a breakdown, contact the dealer who sold it to you. We recommend that you always require original spare parts.
Discharge and recover materials or waste based on the national provisions in force on the subject.

TECHNICAL SPECIFICATIONS

This table specifies the technical characteristics for the two models in the range. Some of these features are also reflected on the label (see section 3 of "*Receiving the machine*") located on the back of the machine.

	MEDIKAL 50 IQ A 220/50 R290	MEDIKAL 90 IQ A 220/50 R290
Supply Voltage	220 – 230 V ±10%	220 – 230 V ±10%
Current Intensity	2.8 A	3a
Maximum power	430 W	470 W
FREQUENCY	50 Hz	50 Hz
Refrigerant - G-Charge	R290-90	R290-110
Climate class	5	5
Power fuse	10	10
IP Grade	IP20	IP20
Category Surge	Or	Or
Degree of contamination	2	2

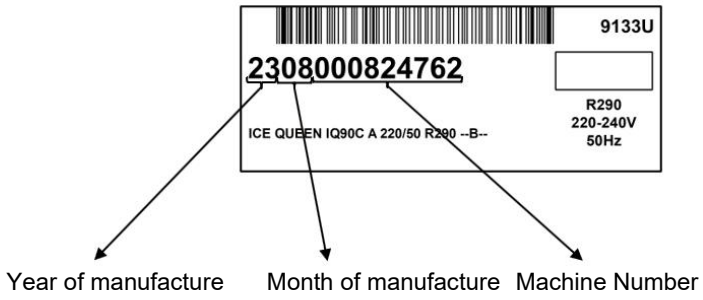
RECEIVE THE MACHINE

Inspect the package externally. If it is broken or damaged, CLAIM IT TO THE CARRIER. To specify if the machine is damaged, UNPACK IT IN THE PRESENCE OF THE CONVEYOR and record on the receipt document, or in a separate letter, any damage the machine may have. Since May 1, 1998, European regulations on the management of Packaging and Packaging Waste have been complied with.
The model or type of appliance as marked on the appliance itself, with the exception of the serial number.

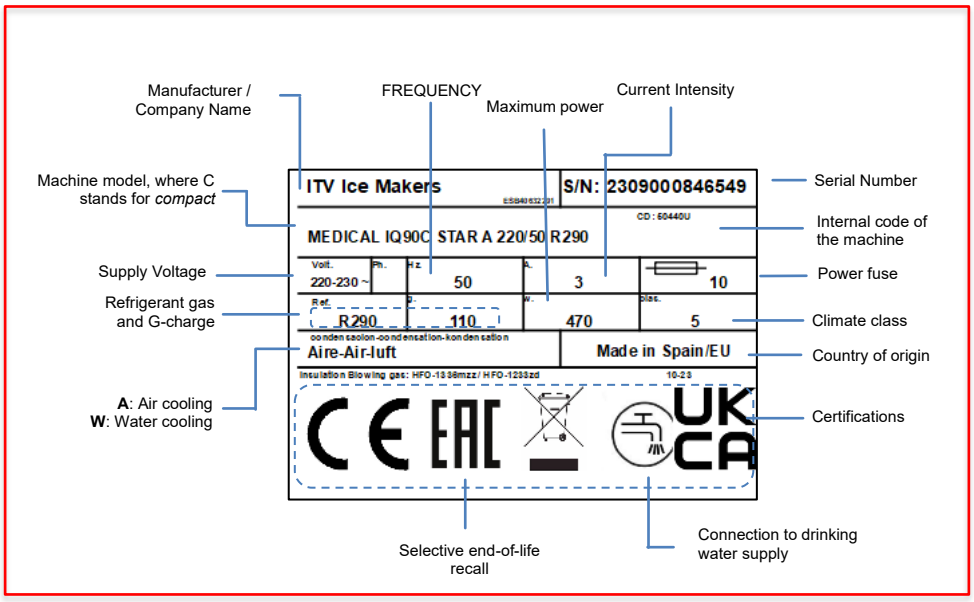
This edition is printed in three locations:

1. Packing
On the outside, it bears a label with the manufacturing serial number:

2. Exterior of the appliance
On the back, on a label the same as the previous one



3. Nameplate
On the back of the machine.



On this label, used as an example and located on the back of the machine, you can see all the technical characteristics of the machine.

Check that the installation kit is complete inside the machine,
Consisting of: Ice shovel, 3/4" connection, drain hose, filter, warranty card and manual.

WARNING: ALL PACKAGING ITEMS (PLASTIC BAGS, CARDBOARD BOXES AND WOODEN PALLETS) MUST NOT BE LEFT WITHIN THE REACH OF CHILDREN AS THEY ARE A POTENTIAL SOURCE OF DANGER.

INSTALLATION

THIS ICE MAKER IS NOT DESIGNED TO OPERATE OUTDOORS AND AT ALTITUDES ABOVE 2000 M.

Incorrect installation of the equipment may result in damage to persons, animals, or property, for which the manufacturer will not be liable.
To avoid a hazard due to the instability of the appliance, it must be secured in accordance with the instructions

LIFTING AND TRANSPORT INSTRUCTIONS: The lifting and transport of the equipment must be carried out using equipment or machinery suitable for this purpose, such as pallet trucks, forklifts, etc., which ensure the lifting of the machine without causing any damage to the equipment or personnel

performing the operation. Equipment must be properly packaged and protected to prevent cosmetic or mechanical damage during transportation.

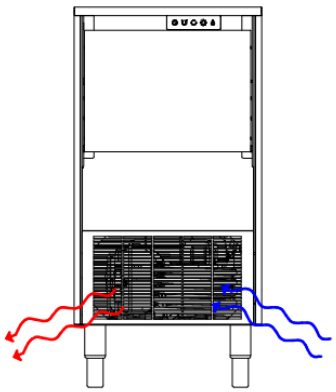
WARNING: The machines are intended to operate at ambient temperatures between 10ºC (41ºF) and 43ºC (109.40ºF) corresponding to climate classification 5, and with water inlet temperatures between 5ºC (41ºF) and 35ºC (95ºF).

WARNING: The machine must operate in a condition of maximum relative humidity of 80% with temperatures up to 31º and decreasing linearly to 50% with a temperature of 40º.

Below minimum temperatures, the gear motor is overforced. Above the maximums, the service life of the compressor is shortened and the production decreases considerably.
Do not place anything on the manufacturer or in front of the front grille.

If the front air inlet is insufficient, the outlet is totally or partially obstructed, or if it is to receive hot air from another appliance due to its placement, we strongly recommend, in the event that it is not possible to change the location of the machine**:**

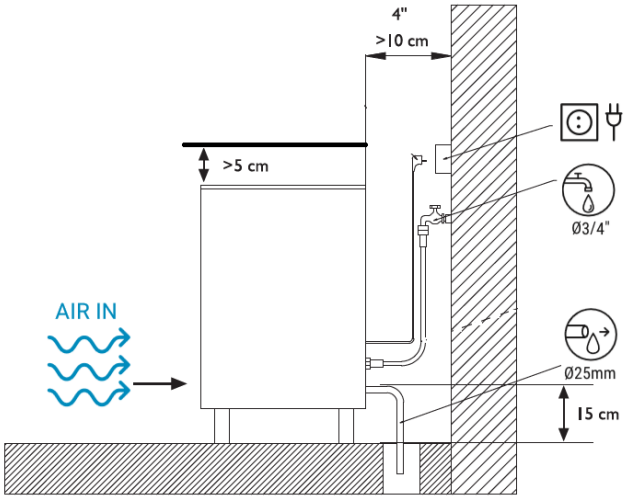
INSTALL A WATER CONDENSATE. IT IS IMPORTANT THAT THE WATER CONNECTION PIPE DOES NOT PASS THROUGH OR NEAR HOT SPRINGS SO AS NOT TO LOSE ICE PRODUCTION.



The appliance must be stored in a room with no continuously running ignition sources (e.g. open flame, a working gas appliance or an electric heater in operation).

On the R290 lower counter units, the air passage may be forward. The unit allows you to work in a built-in position, with a loss of production

SCREW THE LEGS TO THE BASE OF THE MACHINE IN THE BOXES PROVIDED FOR THIS PURPOSE AND ADJUST THEIR HEIGHT SO THAT THE EQUIPMENT IS PERFECTLY LEVEL



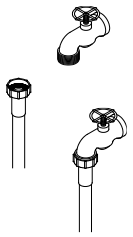
1. WATER AND SEWAGE

Water quality has a significant influence on the quality, hardness and taste of the ice and, in the case of water condensation, the service life of the condenser.

WATER QUALITY AND ASSURANCE

The machines in the Medikal range have an anti-limescale water filter that maintains good water quality, protects the machine and eliminates the taste of chlorine.
The filter allows machines located in areas with water hardness outside the range of 15ºF to 40ºF to operate while maintaining sufficient ice quality.

2. CONNECTION TO THE WATER MAINS



Use the flexible connection to the filter gaskets supplied with the machine. Provide the necessary devices in accordance with current regulations or standards to prevent water from returning to the mains.
The pressure should be between 0.1 MPa and 0.6 MPa (1 to 6 Bar).
If the pressures exceed these values; Install the necessary corrective elements.

3. CONNECTION TO DRAIN

These machines incorporate a discharge pump that allows, whenever the machine is running, the drainage of water into the tank.

The drain should be at a maximum height of 1m and a maximum distance of 30m.

4. ELECTRICAL CONNECTION

THIS APPLIANCE MUST BE EARTHED to avoid possible shock to persons or damage to the equipment, the manufacturer must be grounded in accordance with local and/or national regulations and legislation in each case. THE MANUFACTURER WILL NOT BE HELD RESPONSIBLE FOR DAMAGE CAUSED BY THE FAILURE TO LAND THE INSTALLATION

Warnings:

- ⚠ The positioning of the appliance must ensure that the electrical connection is not damaged or throttled.
- ⚠ Do not install multiple portable outlets or other portable power supplies on the back of the appliance.
- ⚠ The machine is supplied with a power cord, if it is damaged, it must be replaced with a special cord or assembly to be provided by the manufacturer or after-sales service. Such replacement must be carried out by a qualified technical service.
- ⚠ The machine should be positioned in such a way as to leave minimal space between the rear and the wall to allow accessibility to the cable plug comfortably and safely.
- ⚠ Prevent timely socket output.
- ⚠ It is advisable to install a switch and the appropriate electrical safety elements, in accordance with local and/or national regulations in each case.

The voltage and current are marked on the rating plate and technical data sheets in this manual. Voltage variations greater than 10% of the voltage indicated on the hob may cause malfunctions or prevent the machine from starting.

5- UV-O3 KIT

The UV-O3 sanitization kit is based on an electronic board with UV lamp and O3 generator that is integrated inside the machine's electrical panel.

Ozone destroys viruses, bacteria, and fungi faster than chlorine; It keeps the ice maker and stock tub clean, as well as being fully automated and chemical-free.

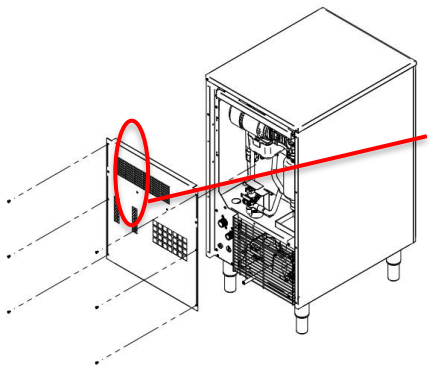
This plate works continuously whenever the machine door is closed. The moment the door is opened, a blue light illuminates on the machine for 2 seconds to signal that the sanitization kit is working effectively. After two seconds, a white light illuminates the tub.
Blue light and white light are lighting lights, they are completely harmless, and they are not harmful to people.
There is no risk of ultraviolet radiation and/or ozone coming into direct contact with the outside of the machine, as soon as the door is opened, the ultraviolet light and the ozone generator are immediately switched off.

6. WATER FILTER

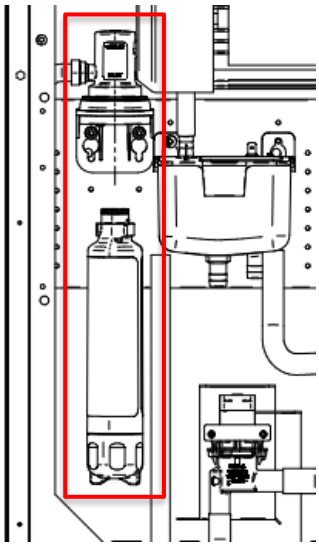
The water filter that Medikal machines have is an anti-limescale and activated carbon filter to maintain good water quality in any circumstance.

It is located at the rear of the machine and consists of a head and a cartridge; the latter **has to be changed every 6 months** to ensure water quality.

6.1 CARTRIDGE CHANGE



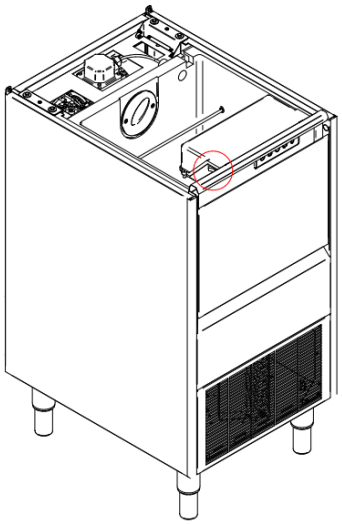
Disassembling the rear panel



Disassembling the filter

To change the cartridge it is necessary to remove the sheet metal back panel by unscrewing the 6 torx screws that fix it to the body of the machine.
Once the panel has been removed it is possible to access the filter (marked in the red rectangle), to remove it you just have to manually unscrew it from the head and it will be possible to remove it and then replace it in the same way with the new cartridge.

6. GENERAL ON/OFF SWITCH

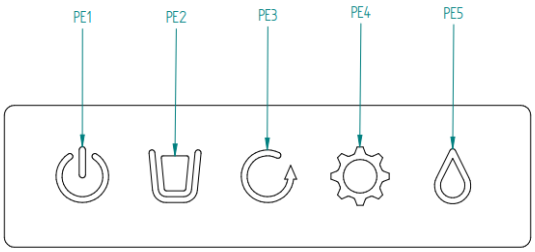


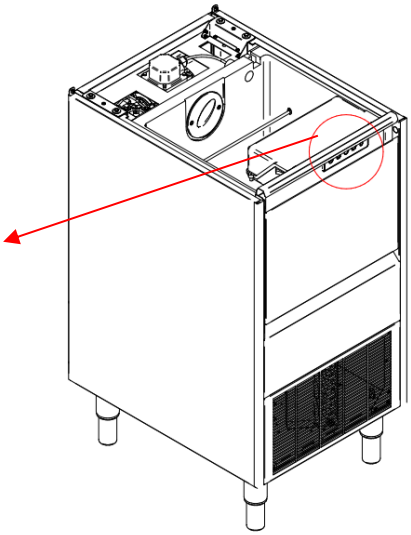
The machines will have a switch to turn off.
We can manipulate the switch by opening the door and manually accessing the upper left part of the inside of the machine.

Before handling inside the machine, it is necessary to disconnect it from the mains.

7. CONTROL PANEL

The outer panel is located on the front of the machine, in the upper corner left and has 5 buttons:





7.1 PE1.-BUTTON POWER ON/OFF

When you turn on the switching machine, the PE1 will turn red, which means that the machine will be in standby state. When you press the PE1 button, it changes to the timing state and the LED lights up a flashing blue. After the timing period, the LED will remain solid blue and the machine will start running. If an alarm is detected on the machine, holding down the button for more than 3 seconds restarts the machine.

7.2 PE2.- COMPLETE WAREHOUSE

This LED will illuminate when the machine stops due to the tank being full.

7.3 PE3.- GEAR MOTOR ALARM

This LED lights up when the machine is stopped by mistake at the gearmotor.

7.4 PE4.- INTERNAL FAULT ALARM

This LED will remain lit when an internal fault occurs in the machine.

7.5 PE4.- ALARM OF FAILURE IN THE SUPPLY OF WATER

This LED indicates that there is no water supply and therefore the machine is stopped as it cannot make ice. Once the supply is restored, the machine will start up again.

8. WATER FILTER

These machines, to ensure the quality of the water used for ice in any circumstance, have a water filter.

START

1. Pre-check

a) The level of the machine?
b) Are the voltage and frequency the same as on the board?
c) Are the drains connected and working?
d) **If it is condensed by air: Is the air circulation and room temperature adequate?

	ENVIRONMEN	WATER
MAXIMUM	43ºC / 109ºF	35ºC / 95ºF
MINIMUM	10ºC / 43ºF	5ºC / 35ºF

e)** Is the water pressure adequate?

MAXIMUM	0.6 MPA (6 bars)
MINIMUM	0.1 MPa (1 bar)

NOTE: If the water inlet pressure is greater than 0.6 MPa (6 Bar), install a pressure reducer.

2. Start-up
After following the installation instructions (ventilation, room conditions, temperatures, water quality, etc.), proceed as follows:

1. Connect to the drinking water mains. Open the water shut-off valve and check that there are no leaks.
2. Connect the machine to the mains. Set the "ON" switch.
3. The button on the control panel, PE1, should be red light, when pressed, it will be left with a flashing blue light for 10 minutes.
4. After the 10-minute timer, the machine will start and the PE1 will have a solid blue light.
5. Check that there are no elements that rub or vibrate.
6. Make sure it produces ice properly. *It is normal that in the first moments a little water falls instead of ice*.
7. Check that there is no alarm on the control panel. In this case, restart the machine. If the problem persists, contact technical service.

ATTENTION:
INSTRUCT THE USER ON MAINTENANCE, INFORMING THEM THAT **MAINTENANCE AND CLEANING OPERATIONS AND MALFUNCTIONS CAUSED BY THEIR OMISSION: ARE NOT INCLUDED IN THE WARRANTY**

MAINTENANCE AND CLEANING INSTRUCTIONS AND PROCEDURES

****WARNING:** During cleaning or maintenance and when replacing parts, the appliance must be disconnected from its power supply or provide a disconnect with a lockout system.

1. Water condenser (frequency: biennial)
To be carried out by a qualified technician. Included in the technical manual.

2. Air condenser (frequency: semi-annual)
1. Disconnect the power supply from the machine.
2. Turn off the water inlet valve or tap.
3. Clean with the help of a vacuum cleaner, non-metallic brush, or low-pressure air.
4. Open the water inlet valve or tap.
5. Turn on the machine's power supply.

3. Cleaning of stock tanks (compact models) (frequency: monthly)
1. Turn off the machine, turn off the water, and empty the ice broth.
2. Use a kitchen towel and dish soap.

4. Exterior cleaning (frequency: monthly)
Use the same procedure as with the reservoir in stock.

5. Descaling and disinfection (frequency: annual)
To be carried out by a qualified technician. Included in the technical manual.

6. Cleaning the intake filters (frequency: semi-annual)
They tend to get clogged in the first few days after the machine is running, ESPECIALLY WITH NEW PLUMBING INSTALLATIONS.
Release the hose and clean it under running water.

7. Water leakage control
Whenever the machine is intervened, check all water connections, the condition of clamps and hoses so as not to leave leaks and avoid breakages and flooding.

8. Filter change (frequency: semi-annual)
It is necessary to change the water filter every 6 months, to ensure the quality of the water and ice.

ENGLISH

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