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Mod: E17/RP7-N

Production code: 206354



Diamond
catering equipment

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I. FOREWORD



The installation, use and maintenance Manual (hereinafter Manual) provides the user with information necessary for correct and safe use of the machine (hereinafter “machine” or “appliance”). The following must not be considered a long and exacting list of warnings, but rather a set of instructions suitable for improving machine performance in every respect and, above all, preventing injury to persons and animals and damage to property due to improper operating procedures. All persons involved in machine transport, installation, commissioning, use and maintenance, repair and disassembly must consult and carefully read this manual before carrying out the various operations, in order to avoid wrong and improper actions that could compromise the machine’s integrity or endanger persons. Make sure to periodically inform the appliance user regarding the safety regulations. It is also important to instruct and update personnel authorised to operate on the machine, regarding its use and maintenance. The manual must be available to operators and carefully kept in the place where the machine is used, so that it is always at hand for consultation in case of doubts or whenever required. If, after reading this manual, there are still doubts regarding machine use, do not hesitate to contact the Manufacturer or the authorised after-sales service centre, to receive prompt and precise assistance for better operation and maximum efficiency of the machine. During all stages of machine use, always respect the current regulations on safety, work hygiene and environmental protection. It is the user’s responsibility to make sure the machine is started and operated only in optimum conditions of safety for persons, animals and property.

The manufacturer declines any liability for operations carried out on the appliance without respecting the instructions given in this manual. No part of this manual may be reproduced.

II. INSTALLATION

1. GENERAL INFORMATION

1.1 INTRODUCTION

Given below is some information regarding the machine's intended use, its testing, and a description of the symbols used (that identify the type of warning), the definitions of terms used in the manual and useful information for the appliance user.

1.2 INTENDED USE AND RESTRICTIONS

Install the appliance in compliance with the current regulations and laws regarding installation of electric and gas appliances.

Our appliances are designed and optimised in order to obtain high performance and efficiency. This appliance is designed for cooking food. Any other use is deemed improper.

The appliance must not be used by people (including children) with limited physical, sensory or mental abilities or without experience and knowledge of it, unless instructed in its use by those responsible for their safety.

ATTENTION: The machine is not suitable for installation outdoors and/or in places exposed to atmospheric agents (rain, direct sunlight, etc.).

The manufacturer declines any liability for improper use of the product.

1.3 TESTING AND INSPECTION

Our appliances are designed and optimised, with laboratory testing, in order to obtain high performance and efficiency. The product is shipped ready for use. Passing of the tests (visual inspection - electrical/gas test - functional test) is guaranteed and certified by the specific enclosures.

1.4 DEFINITIONS

Listed below are the definitions of the main terms used in the manual. Carefully read them before using the manual.

Operator

machine installation, adjustment, use, maintenance, cleaning, repair and transport personnel.

Manufacturer

Electrolux Professional SPA or any other service centre authorised by Electrolux Professional SPA.

Operator for normal machine use

an operator who has been informed and trained regarding the tasks and hazards involved in normal machine use.

Technical assistance or specialised technician

an operator instructed/trained by the Manufacturer and who, based on his professional and specific training, experience and knowledge of the accident-prevention regulations, is able to appraise the operations to be carried out on the machine and recognise and prevent any risks. His professionalism covers the mechanical, electrotechnical and electronics fields.

Danger

source of possible injury or harm to health.

Hazardous situation

any situation where an operator is exposed to one or more hazards.

Risk

a combination of probabilities and risks of injury or harm to health in a hazardous situation.

Protection devices

safety measures consisting of the use of specific technical means (guards and safety devices) for protecting operators against risks.

Guard

an element of a machine used in a specific way to provide protection by means of a physical barrier.

Safety device

a device (other than a guard) that eliminates or reduces the risk; it can be used alone or in combination with a guard.

Customer

the person who purchased the machine and/or who manages and uses it (e.g. company, entrepreneur, firm).

Electrocution

an accidental discharge of electric current on a human body.

1.5 TYPOGRAPHICAL CONVENTIONS

For best use of the manual, and therefore the machine, it is advisable to have good knowledge of the terms and typographical conventions used in the documentation.

The following symbols are used in the manual to indicate and identify the various types of hazards:



**ATTENTION!
DANGER FOR THE HEALTH AND SAFETY OF
OPERATORS.**



**ATTENTION!
DANGER OF ELECTROCUTION -
DANGEROUS VOLTAGE.**



**ATTENTION!
RISK OF DAMAGE TO THE MACHINE.**

Words further explaining the type of hazard are placed next to the symbols in the text. The warnings are intended to guarantee the safety of personnel and prevent damage to the machine or the product being worked. The drawings and diagrams given in the manual are not in scale. They supplement the written information with an outline, but are not intended to be a detailed representation of the machine supplied.

The numerical values given on the machine installation diagrams refer to measurements expressed in mm.

1.6 MACHINE AND MANUFACTURER'S IDENTIFICATION DATA

A reproduction of the marking or dataplate on the machine is given below:

GAS

F.Mod.		Comm.Mod.		Ser.No.	999999999	ELX	Made in EU	99-9999	
PNC	99	A99AAA	EL:			Hz	kW	A	
EL:									
Cat.									
P mbar									
Cat.									
P mbar									
Σ Qn	kW	G 30	kg/h	Lb1	kg/h	Lb2	m³/h		
	G 25/G 25.1	m³/h	G 110	m³/h					
Tipe-Bauart-Tipo		G 120	m³/h						
F.Mod.		PNC		Ser.No.	999999999	F.Mod.		PNC	

EL

F.Mod.		Comm.Mod.		Ser.No.	999999999	ELX	Made in EU	99-9999	
PNC	99	A99AAA	EL:			Hz	kW	A	
EL:									
MW freq									
BU									
L									
I									
F.Mod.		PNC		Ser.No.	999999999	F.Mod.		PNC	

The meaning of the various information given on it is listed below:

F.Mod. factory description of product
 Comm.Model commercial description
 PNC production number code
 Ser.No serial number
 El: power supply voltage+phase
 Hz: power supply frequency
 kW: max. power input
 A current absorption
 Power unit EL: power
 I dust and water protection rating
 CE CE marking
 AB gas safety certificate number
 N certification group
 0051 notified body
 EN 203-1 EU standard
 L Logo INQ/GS
 Cat Gas Category
 Pmbar Gas pressure

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(Italy) Manufacturer

When installing the appliance, make sure the electrical connection is carried out in compliance with that specified on the dataplate.



ATTENTION!

Do not remove, tamper with or make the machine "CE" marking illegible.



ATTENTION!

Refer to the data given on the machine "CE" marking for relations with the Manufacturer (e.g. when ordering spare parts, etc.).

ATTENTION!



When scrapping the machine, the "CE" marking must be destroyed.

1.7 APPLIANCE IDENTIFICATION

This manual contains instructions relevant to various appliances. See the appliance dataplate located under the control panel to identify the appliance product code.

1.8 COPYRIGHT

This manual is intended solely for consultation by the operator and can only be given to third parties with the permission of Electrolux Professional SPA.

1.9 RESPONSIBILITY

The Manufacturer declines any liability for damage and malfunctioning caused by:

- non-compliance with the instructions contained in this manual;
- repairs not carried out in a workmanlike fashion, and replacements with parts different from those specified in the spare parts catalogue (the fitting and use of non-original spare parts and accessories can negatively affect machine operation and invalidates the warranty);
- operations by non-specialised technicians;
- unauthorised modifications or operations;
- inadequate maintenance;
- improper machine use;
- unforeseeable extraordinary events;
- use of the machine by uninformed and untrained personnel;
- non-application of the current provisions in the country of use, concerning safety, hygiene and health in the workplace.

The Manufacturer declines any liability for damage caused by arbitrary modifications and conversions carried out by the user or the Customer. The employer, workplace manager or service technician are responsible for identifying and choosing adequate and suitable personal protection equipment to be worn by operators, in compliance with regulations in force in the country of use.

Electrolux Professional SPA declines any liability for any inaccuracies contained in the manual, if due to printing or translation errors.

Any supplements to the installation, use and maintenance manual the Customer receives from the Manufacturer will form an integral part of the manual and therefore must be kept together with it.

1.10 PERSONAL PROTECTION EQUIPMENT

Given below is a summary table of the Personal Protection Equipment (PPE) to be used during the various stages of the machine's service life.

Fase	Indumenti di protezione	Calzature di sicurezza	Guanti	Occhiali	Protezioni auricolari	Mascherina	Casco o elmetto
Trasporto							
Movimentazione							
Disimballo							
Montaggio							
Uso ordinario							
Regolazioni							
Pulizia ordinaria							
Pulizia straordinaria							
Manutenzione							
Smontaggio							
Demolizione							

Legenda:		DPI PREVISTO
		DPI A DISPOSIZIONE O DA UTILIZZARE SE NECESSARIO
		DPI NON PREVISTO

During **Normal use**, gloves protect hands from contact with hot food or hot parts of the appliance.

1.11 KEEPING THE MANUAL

The manual must be carefully kept for the entire life of the machine, until scrapping.

The manual must stay with the machine in case of transfer, sale, hire, granting of use or leasing.

1.12 RECIPIENTS OF THE MANUAL

This manual is intended for:

- the carrier and handling personnel;
- installation and commissioning personnel;
- the employer of machine users and the workplace manager;
- operators for normal machine use;
- specialised technicians - after-sales service.

2. TRANSPORT, HANDLING AND STORAGE

2.1 INTRODUCTION

Transport (i.e. transfer of the machine from one place to another) and handling (i.e. transfer inside workplaces) must occur with the use of special and adequate means.



ATTENTION!

Given their size, the machines can be stacked on top of each other during transport, handling and storage by complying with that specified on the slip placed on the packing;

The machine must only be transported, handled and stored by qualified personnel, who must:

- have specific technical training and experience in the use of lifting systems;
- have knowledge of the safety regulations and applicable laws in the relevant sector;
- have knowledge of the general safety rules;
- ensure the use of personal protection equipment suitable for the type of operation carried out;
- be able to recognise and avoid any possible hazard.

2.2 TRANSPORT: INSTRUCTIONS FOR THE CARRIER



ATTENTION!

Do not stand under suspended loads during loading/unloading operations. Unauthorised personnel must not enter the work area.



ATTENTION!

The machine's weight alone is not sufficient to keep it steady. The transported load can shift:

- when braking;
- when accelerating;
- in corners;
- on rough roads.

2.3 HANDLING

Arrange a suitable area with flat floor for machine unloading and storage operations.

2.4 PROCEDURES FOR HANDLING OPERATIONS

For correct and safe lifting operations:

- use the type of equipment most suitable for characteristics and capacity (e.g. electric pallet truck or lift truck);
- cover sharp edges;

Before lifting:

- send all operators to a safe position and prevent persons from entering the handling area;
- make sure the load is stable;
- make sure no material can fall during lifting. Manoeuvre vertically in order to avoid impacts;
- handle the machine, keeping it at minimum height from the ground.



ATTENTION!

For machine lifting, do not use movable or weak parts such as: casings, electrical raceways, pneumatic parts, etc.

2.5 TRANSLATION

The operator must:

- have a general view of the path to be followed;
- stop the manoeuvre in case of hazardous situations.



ATTENTION!

Do not push or pull the appliance to move it, as it may tip over.

2.6 PLACING THE LOAD

Before placing the load, make sure the way is free and that the floor is flat and can take the load. Remove the appliance from the wooden pallet, move it to one side, then slide it onto the floor.

2.7 STORAGE

The machine and/or its parts must be stored and protected against damp, in a non-aggressive place free of vibrations and with room temperature between -10°C and 50°C. The place where the machine is stored must have a flat support surface in order to avoid any twisting of the machine or damage to the support feet.



ATTENTION!

Machine positioning, installation and disassembly must be carried out by a specialised technician.



ATTENTION!

Do not make modifications to the parts supplied with the machine. Any missing or faulty parts must be replaced with original parts.

3. INSTALLATION AND ASSEMBLY

To ensure correct operation of the appliance and maintain safe conditions during use, carefully follow the instructions given below in this section.



ATTENTION!

The operations described below must be carried out in compliance with the current safety regulations, regarding the equipment used and the operating procedures.



ATTENTION!

Before moving the appliance make sure the capacity of the lifting equipment used is suitable for its weight.

3.1 CUSTOMER'S RESPONSIBILITIES

The Customer must:

- prearrange a high-sensitivity manual-reset differential thermal-magnetic switch. For information regarding the electrical connection, refer to par. 5.2 "Electrical connection";
- check the flatness of the surface on which the machine is placed.
- prearrange a device lockable in the open position for the connection to the power supply.
- prearrange the connection to a suitable earthing system (par. 5.2.3)
- install a rapid gas shutoff cock/valve ahead of each individual appliance. Install the cock/valve in an easily accessed place.

3.2 MACHINE SPACE LIMITS

A suitable space must be left around the machine (for operations, maintenance, etc.). This space must be increased in case of use and/or transfer of other equipment and/or means or if exit routes are necessary inside the workplace.



RISK OF FIRE - Keep the area around the appliance free and clear of combustibles.

Do not keep flammable materials in the vicinity of this appliance.

Install the appliance in a well-ventilated place to avoid the creation of dangerous mixtures of unburnt gases in the same room.

Air recirculation must take into account the air necessary for combustion 2 m³/h/kW of gas power, as well as the well-being of persons working in the kitchen.

Inadequate ventilation causes asphyxia. Do not obstruct the ventilation system in the place where this appliance is installed.

Do not obstruct the vents or ducts of this or other appliances. Place emergency telephone numbers in a visible position.

3.3 POSITIONING

The installation diagram included in the packing gives the appliance overall dimensions and the position of connections (gas, electricity, water).

The appliance must be installed next to a pasta cooker of the same range.

Leave at least 10 cm between the appliance and side or rear walls.

Suitably insulate surfaces that are at distances less than that indicated.

Maintain an adequate distance between the appliance and any combustible walls. Do not store or use flammable materials and liquids near the appliance.

Install the appliance, taking all the

safety precautions required for this type of operation, also respecting the relevant fire-prevention instructions.

If the machine is installed in places where there are corrosive substances (chlorine, etc.), it is advisable to go over all the stainless steel surfaces with a rag soaked in paraffin oil to create a protective film.

The machine must be taken to the place of installation and the packing base removed only when being installed.

3.3.1 ARRANGING THE MACHINE

- position the machine in the required place;
- adjust the height and levelling with the adjustment feet, also checking correct door closing
- wear protective gloves and unpack the machine, carrying out the following operations:
 - cut the straps and remove the protective film, taking care not to scratch the surface if scissors or blades are used;
 - remove the polystyrene corners and the vertical protection pieces. For appliances with stainless steel cabinet, remove the protective film very slowly without tearing it, to avoid leaving glue stuck to the surface. Should this happen, remove the traces of glue with a non-corrosive solvent, rinsing it off and drying thoroughly; it is advisable to go over all the stainless steel surfaces with a rag soaked in paraffin oil in order to create a protective film.

3.4 DISPOSAL OF PACKING

The packing must be disposed of in compliance with the current regulations in the country where the appliance is used.

All the packing materials are environmentally friendly. They can be safely kept, recycled or burnt in an appropriate waste incineration plant. Recyclable plastic parts are marked as follows:



polyethylene: outer wrapping, instruction booklet bag



polypropylene: straps



polystyrene foam: corner protectors

The parts in wood and cardboard can be disposed of, respecting the current regulations in the country where the machine is used.

3.5. JOINING APPLIANCES

- (Fig. 1D) Bring the appliances together and level them by turning the feet until the tops match.
- (Fig. 1F) From the rear of the appliances, insert the coupling plate (provided) in the side slots on the back panels. Secure the plate with two flathead M5 screws provided.

NOTE: For appliances installed individually or for appliances at the front of an installation (where the joining plate is not used), insert the plug "T" (provided) (Fig 1 G) in the side slots on the back. Tighten the plug with the self-threading screw provided.

3.6 ASSEMBLY AND JOINING OF COUNTERTOP APPLIANCES ON BASE, OVEN, BRIDGE, CANTILEVER FRAME

Follow the instructions enclosed with the optional product chosen.

3.7 SEALING GAPS BETWEEN APPLIANCES

Follow the instructions enclosed with the optional sealing paste pack.

4. CONNECTIONS

Refer to the appliance dataplate for the product code.

See the installation diagrams for the position of connections on the appliance:

- GAS (ø1/2" M ISO 7/1)
- ELECTRICITY
- WATER SUPPLY

4.1 ELECTRICAL CONNECTION (Fig. 4A).

Connection to the power supply must be carried out in compliance with the regulations and provisions in force in the country of use.

ATTENTION!

Work on the electrical systems must only be carried out by a qualified electrician.

Before carrying out any cleaning or maintenance operation, disconnect the appliance from the power supply and carefully unplug it.

IMPORTANT! Before connecting, **make sure:**

- the mains voltage and frequency match that given on the dataplate and that there is an efficient earth contact.
- the system power supply is arranged and able to take the actual current absorption and that it is correctly executed according to the regulations in force in the country of use;
- a differential thermal-magnetic switch suitable for the input specified on the dataplate, with contact gap enabling complete disconnection in category III overvoltage conditions and complying with the regulations in force, is installed between the power cable and the electric line. For the correct size of the switch, refer to the absorbed current specified on the appliance dataplate.

- the mains voltage and frequency match that given on the dataplate.

- To access terminal block, remove the front panel of the appliance by removing the fixing screws;
- Connect the power cable to the terminal block as shown in the wiring diagram attached to the appliance.
- Secure the power cable with the cable gland.

IMPORTANT! The manufacturer declines any liability if the safety regulations are not respected.

• After making the connection, with the machine running check that the power supply does not fluctuate by $\pm 10\%$ the rated voltage.

• Installation requires the inclusion of a device lockable in the "open" position during maintenance

4.1.1. POWER CABLE

Unless otherwise specified, our appliances are not equipped with a power cable. The installer must use a flexible cable having characteristics at least equivalent to H05RN-F rubber-insulated type. Protect the cable section outside the appliance with a metal or rigid plastic pipe.

If the power cable is damaged, it must be replaced by the after-sales service or in any case by qualified personnel, in order prevent any risk.

The manufacturer declines any liability for damage or injury resulting from breach of the above rules or non-compliance with the electrical safety regulations in force in the country where the machine is used.

4.2. EQUIPOTENTIAL NODE AND EARTH CONNECTION

Connect the appliance to an earth; it must be included in an equipotential node by means of the screw located at the front right under the frame. The screw is marked with the symbol



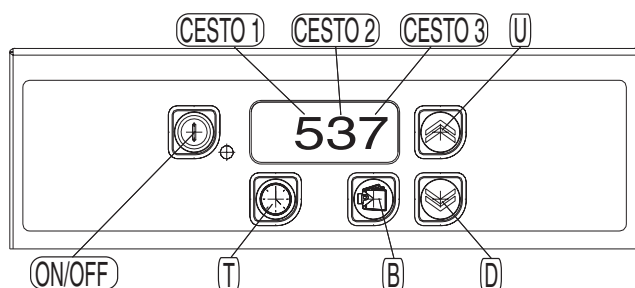
III INSTRUCTIONS FOR THE OPERATOR FOR NORMAL MACHINE USE

1. USE OF THE BASKET LIFTING ACCESSORY FOR PASTA COOKER

General precautions

- The appliance is intended for professional use by trained personnel.
- This appliance must only be used for its expressly designed purpose; any other use is deemed improper.
- The card is inserted in an internal drawer and is used as an electronic “timer” for the lifting system. For basket movement, use the buttons with LED lighting on the control panel.

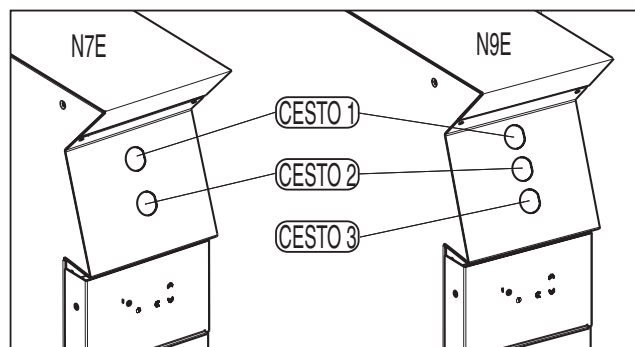
2. FUNCTIONAL SPECIFICATIONS



With the appliance fed in OFF status all the baskets must be lowered.

Press the **ON/OFF** button to switch the appliance on or off. When the machine is off, all the luminous indicators must be off. With the machine on, in standby mode and during normal operation, or with cooking cycle active, the green LED will be lit up and the number of the programme selected for the relevant basket will appear on the display. In the version **N7E**, with just 2 baskets, only the digits relevant to Basket 1 and Basket 2 will be displayed, whereas the digit relevant to Basket 3 will remain off.

Press the relevant button on the control panel to lower the basket.



The button light will go off for a duration equal to that of the cycle. At the end of the cycle the basket is lifted and the light comes on.

Before the end of every cycle, relevant to a time T defined by the parameter “**btbE**”, a double beep lasting 1 second sounds.

The card temperature can be displayed at any time, except the cycle, time and parameter programming phase, by pressing the buttons “**U**”/“**D**” together. If this temperature is higher than 70°C the machine must go on **OFF** status. Use the **ON/OFF** button to switch the appliance on again. In any case it cannot be switched on again until the temperature is below 70°C.

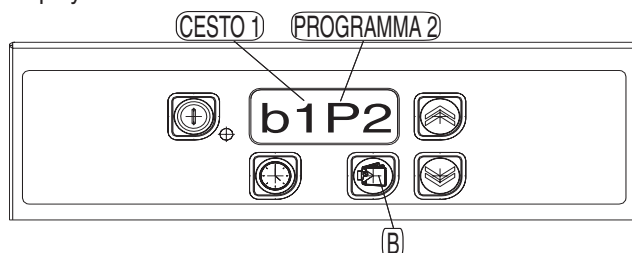
3. PROGRAMMING TIMES AND CYCLES

Given below are the phases for entering the basket cycle and time programming mode. The Times\Cycles programming phase can be entered at any time, but with the machine on. On entering this phase, however, all the cooking cycles will be reset and the card switches to standby mode on exiting the programming phase.

3.1 CYCLE PROGRAMMING

To enter the cycle type programming phase, keep the button “**B**” pressed for at least 2 seconds.

The basket number with respective cycle will appear on the display:

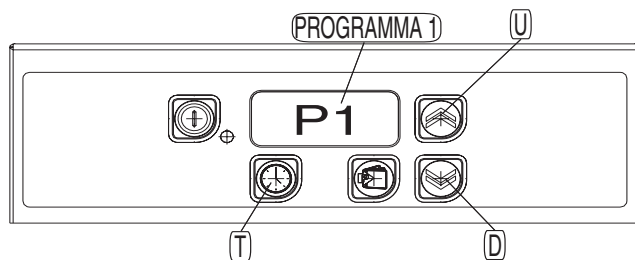


Press the button “**B**” again to change the basket number. The basket with respective cycle will be displayed. **Even in this case only Basket 1 and Basket 2 can be selected for the 2-basket version.**

Press the buttons “**U**”/“**D**” to modify the type of programme. Press the button “**B**” again to change the basket number. The standby mode is restored for time-out (for 10 seconds fixed and non-modifiable by parameter) or by keeping the button “**B**” pressed for 2 seconds. The set parameters are memorised on exiting the programming phase.

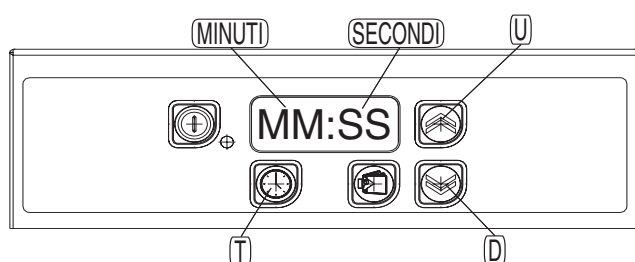
3.2 PROGRAMMING TIMES

To enter the cycle time programming phase, keep the button “**T**” pressed for at least 2 seconds. The programme number will appear on the display (always starting from Programme 1)



Press the button “**T**” again to select the programme number which is shown on the display, from **P1** to **P9**.

Press one of the buttons “**U**”/“**D**” once to display the time of the relevant programme selected. Press the buttons “**U**”/“**D**” again to modify the programme time in minutes and seconds.



Press the button “**T**” to memorise the programme time and the display will show the programme number again.

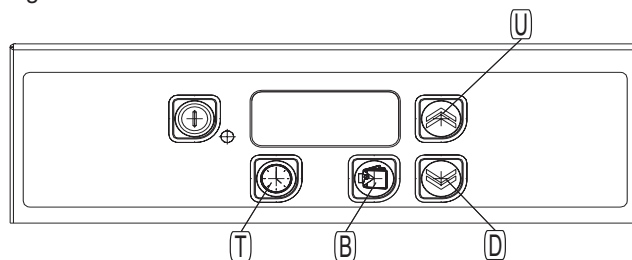
The time can be selected from a minimum of 10 seconds to a maximum of 59 minutes and 59 seconds. If a time longer than maximum or shorter than minimum is selected, the display will show the message “**INF**”, in which case the cycle duration will be infinite, or the cycle will be manual.

The standby mode is restored for time-out (for 10 seconds fixed and non-modifiable by parameter) or by keeping the button “**T**” pressed for 2 seconds. The set parameters are memorised on exiting the programming phase.

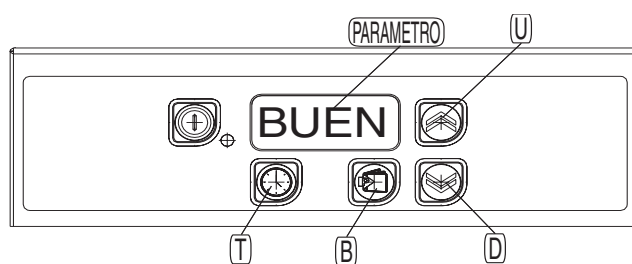
4. PARAMETER PROGRAMMING

4.1 ENTRY MODE

Switch the appliance off and press the buttons “**U**”/“**D**”, “**T**” and “**B**” together for 5 seconds



Select the parameter with the buttons “**U**”/“**D**” and press “**B**” to switch between label and value of the parameter; modify the parameter by pressing “**U**”/“**D**”, then press the button “**B**” to confirm; wait 10 seconds to exit the parameter setting mode, or press the buttons “**U**”/“**D**” and “**B**” together



5. TABLE OF PARAMETERS

LABEL	DESCRIZIONE	UNIT	MIN	MAX	FACTORY DEFAULT	N7E 2 CEST	N9E 3 CEST
REL	Firmware Release	-	-	-	-	-	-
BUEN	Buzzer Eneble	-	OFF	ON	ON	ON	ON
BAN	Basket Number	-	2	3	3	2	3
BTBE	Buzzer Time Before end Cycle	[S]	1	10	10	10	10

IV CLEANING AND MAINTENANCE

1 GENERAL SAFETY RULES



ATTENTION!

Machine maintenance operations must only be carried out by specialised Technicians provided with suitable personal protection equipment (safety shoes, gloves, glasses, overalls, etc.), tools, utensils and ancillary means.



ATTENTION!

Never operate the machine, removing, modifying or tampering with the guards, protection or safety devices.



ATTENTION!

Before carrying out any operation on the machine, always consult the manual which gives the correct procedures and contains important information on safety.

1.1 INTRODUCTION

The machines are provided with electric and/or mechanical safety devices for protecting workers and the machine itself. Therefore the user must not remove or tamper with such devices.

The Manufacturer declines any liability for damage due to tampering or their non-use.

1.2. PROTECTION DEVICES INSTALLED ON THE MACHINE

1.2.1 Guards

The guards on the machine are:

- fixed guards (e.g. casings, covers, side panels, etc.), fixed to the machine and/or frame with screws or quick-release connectors that can only be removed or opened with tools;
- machine electrical equipment access doors made from hinged panels openable with tools, with the machine disconnected from the power supply.



ATTENTION!

Several illustrations in the manual show the machine, or parts of it, without guards or with guards removed. This is purely for explanatory purposes. Do not use the machine without the guards or with the protection devices deactivated.

1.2.2 SAFETY SIGNS TO BE PLACED ON THE MACHINE OR NEAR ITS AREA

RISK	MEANING
	BURN HAZARD
	RISK OF ELECTRIC SHOCK
	DANGER OF CRUSHING



ATTENTION!

Do not remove, tamper with or make illegible the safety, danger and instruction signs and labels on the machine.

1.2.3 CEASED USE

When the appliance is no longer to be used, make it unusable by removing the power supply wiring.

1.2.4 INSTRUCTIONS FOR USE AND MAINTENANCE

Risks mainly of a mechanical and electrical nature are present in the machine.

Where possible the risks have been neutralised:

- directly, by means of adequate design solutions,
- indirectly by using guards, protection and safety devices.

During maintenance several risks remain, as these could not be eliminated, and must be neutralised by adopting specific measures and precautions.

Do not carry out any checking, cleaning, repair or maintenance operations on moving parts.

Workers must be informed of the prohibition by means of clearly visible signs. To guarantee machine efficiency and correct operation, periodical maintenance must be carried out according to the instructions given in this manual. In particular, make sure to periodically check correct operation of all the safety devices and the insulation of electrical cables, which must be replaced if damaged.

1.2.5 REASONABLY FORESEEABLE IMPROPER USE

Improper use is any use different from that specified in this manual. During machine operation, other types of work or activities deemed improper and that in general can involve risks for the safety of operators and damage to the appliance are not allowed.

Reasonably foreseeable improper use includes:

- lack of machine maintenance, cleaning and periodical checks;
- structural changes or modifications to the operating logic;
- tampering with the guards or safety devices;
- failure to use personal protection equipment by operators, specialised technicians and personnel for normal use;
- failure to use suitable accessories (e.g. use of unsuitable equipment or ladders);
- keeping combustible or flammable materials, or in any case materials not compatible with or pertinent to the work, near the machine;
- wrong machine installation;
- climbing on the machine;

- non-compliance with the requirements for correct machine use;
- other actions that give rise to risks not eliminable by the Manufacturer.



ATTENTION!

The previously described actions are prohibited!

1.2.6 RESIDUAL RISKS

The machine has several risks that were not completely eliminated from a design standpoint or with the installation of adequate protection devices.

Nevertheless, through this manual the Manufacturer has taken steps to inform operators of such risks, carefully indicating the personal protection equipment to be used by them.

Sufficient spaces are provided for during the machine installation stages in order to limit these risks.

To preserve these conditions, the areas around the machine must always be:

- kept free of obstacles (e.g. ladders, tools, containers, boxes, etc.);
- clean and dry;
- well lit.

For the Customer's complete information, the residual risks remaining on the machine are indicated below: such actions are to be considered incorrect and therefore strictly forbidden.

RESIDUAL RISK	DESCRIPTION OF HAZARDOUS SITUATION
Slipping or falling	The operator can slip due to water or dirt on the floor.
Burns/abrasions (e.g. heating elements)	The operator deliberately or unintentionally touches some components inside the machine without using protective gloves.
Electrocution	Contact with live parts during maintenance operations carried out with the electrical panel powered.
Tipping of loads	When handling the machine or the packing containing it, using unsuitable lifting systems or accessories or with the load unbalanced.

2. NORMAL MACHINE USE

2.1 CHARACTERISTICS OF PERSONNEL TRAINED FOR NORMAL MACHINE USE

The Customer must make sure the personnel for normal machine use are adequately trained and skilled in their duties, as well as ensuring their own safety and that of other persons. The Customer must make sure his personnel have understood the instructions received and in particular those regarding work hygiene and safety in use of the machine.

2.2 CHARACTERISTICS OF PERSONNEL ENABLED TO OPERATE ON THE MACHINE

The Customer is responsible for ensuring that persons assigned to the various duties:

- read and understand the manual;
- receive adequate training and instruction for their duties in order to perform them safely;
- receive specific training for correct machine use.

2.3 OPERATOR FOR NORMAL USE

He must have at least:

- knowledge of the technology and specific experience in operating the machine;
- adequate general basic education and technical knowledge for reading and understanding the contents of the manual;
- including correct interpretation of the drawings, signs and pictograms;
- sufficient technical knowledge for safely performing his duties as specified in the manual;
- knowledge of the regulations on work hygiene and safety.

In case of a significant fault (e.g. short circuits, wires coming out of the terminal block, motor failures, worn electrical cable sheathing, etc.), the operator for normal machine use must:

- immediately deactivate the machine.

3 MACHINE CLEANING AND MAINTENANCE



ATTENTION!

Before carrying out any cleaning or maintenance operation, disconnect the appliance from the power supply by means of the device lockable in open position.



ATTENTION!

During maintenance, the cable and plug must be kept in a visible position by the operator carrying out the work.



ATTENTION!

Do not touch the appliance with wet hands or feet or when barefoot. DO NOT remove the safety guards.



ATTENTION!

Use suitable personal protection equipment (protective gloves).

3.1 ROUTINE MAINTENANCE

Frequently check the state of the power cable and, if necessary, request the assistance of the specialised technician to replace it; have the appliance checked periodically (at least once a year).



ATTENTION!

Disconnect the power supply before cleaning the appliance.

3.2 PRECAUTIONS FOR MAINTENANCE

Routine maintenance operations can be carried out by non-specialised personnel, carefully following the instructions given below. **The manufacturer declines any liability for operations carried out on the machine without following these instructions.**

3.2 CLEANING THE APPLIANCE AND ACCESSORIES



Before using the appliance, clean all the internal parts and accessories with lukewarm water and neutral soap or products that are over 90% biodegradable (in order to reduce the emission of pollutants into the environment), then rinse and dry thoroughly. Do not use solvent-based detergents (e.g. trichloro-ethylene) or abrasive powders for cleaning. It is advisable to go over the stainless steel surfaces with a rag moistened with paraffin oil in order to create a protective film.



ATTENTION!

Do not clean the machine with jets of water.

3.3 PRECAUTIONS IN CASE OF LONG IDLE PERIODS

If the appliance is not going to be used for some time, take the following precautions:

- Close the cocks or main switches ahead of the appliances.
- Go over all the stainless steel surfaces vigorously with a rag moistened with paraffin oil in order to create a protective film.
- Have the appliance checked before using it again.
- To prevent too rapid evaporation of accumulated moisture with consequent breakage of elements, switch electric appliances on at minimum heat for at least 45 minutes before reuse.



ATTENTION!

Put the machine in safe conditions before starting any maintenance operation.

After carrying out maintenance, make sure the machine is able to work safely and, in particular, that the protection and safety devices are efficient.



ATTENTION!

Respect the requirements for the various routine and extraordinary maintenance operations. Non-compliance with the instructions can create risks for personnel.

3.4 EXTERNAL PARTS

SATIN-FINISH STEEL SURFACES (daily)

- Clean all steel surfaces: dirt is easily removed when it has just formed.
- Remove grime, fat and other cooking residuals from steel surfaces when cool using soapy water, with or without detergent, and a cloth or sponge. Dry the surfaces thoroughly after cleaning.
- In case of encrusted grime, fat or food residuals, go over with a cloth or sponge, wiping in the direction of the satin finish and rinsing often: rubbing in a circular motion combined with the particles of dirt on the cloth/sponge could spoil the steel's satin finish.
- Metal objects can spoil or damage the steel: damaged surfaces become dirty more easily and are more subject to corrosion.
- Restore the satin finish if necessary.

SURFACES BLACKENED BY HEAT (when necessary)

Exposure to high temperatures can cause the formation of dark marks. These do not constitute damage and can be removed by following the instructions given in the previous section.

3.5 OTHER SURFACES

HEATED TANKS/CONTAINERS (daily)

Clean the appliance tanks or containers using boiled water, adding soda (degreasing) if necessary. Use the accessories (optional or supplied) specified in the list to eliminate encrustations or food deposits.

IMPORTANT – With electrical equipment, make sure no water comes into contact with electrical components: water entering can cause short circuiting and dissipation, tripping the appliance's protection devices.

SURFACES IN SOFT IRON OR CAST IRON (daily)

Remove dirt using a damp cloth or, in case of encrustations, the accessories (optional or supplied) specified in the list. After cleaning, switch the appliance on to dry the surface quickly, then protect the surface with a light film of cooking oil.

3.6 SCALE

STEEL SURFACES (when necessary)

Remove any scale (stains or marks) left by water on steel surfaces using suitable natural detergents (e.g. vinegar) or chemical (e.g. "STRIPAWAY" produced by ECOLAB).

3.7 INTERNAL PARTS (every 6 months)

IMPORTANT! Operations to be carried out only by specialised technicians.

- Check the internal parts.
- Remove any deposits of dirt inside the appliance.
- After the first month of use, it is advisable to clean and re-grease the lifting system to eliminate any work residuals. Subsequently, at least once a year, or when necessary, lubricate the lifting system using a brush or grease gun.

NOTE ! In particular ambient conditions (e.g. **intensive** use of the appliance, salty environment, etc.) the above-mentioned cleaning should be more frequent.

3.8 EXTRAORDINARY MAINTENANCE.



ATTENTION!
USE SUITABLE PERSONAL PROTECTION EQUIPMENT WHEN CARRYING OUT ANY EXTRAORDINARY MAINTENANCE OPERATION.

Extraordinary maintenance must be carried out by specialised personnel, who can ask the manufacturer to supply a servicing manual.

There must be free air circulation above the appliance. There must be no obstructions caused by trays, cardboard boxes, jars or other materials; otherwise they must be immediately removed.

3.8.1 MAINTENANCE INTERVALS

The inspection and maintenance intervals depend on the actual machine operation conditions and ambient conditions (presence of dust, damp, etc.), therefore precise time intervals cannot be given. In any case, to minimise interruptions of the service, careful and periodical machine maintenance is advisable.

It is advisable to stipulate a preventive and scheduled maintenance contract with the after-sales service.

3.8.2 MAINTENANCE FREQUENCY

In order to guarantee constant machine efficiency, it is advisable to carry out the checks with the frequency given in the following table::

MAINTENANCE, INSPECTIONS, CHECKS AND CLEANING	FREQUENCY
Routine cleaning	Daily
General cleaning of machine and surrounding area	
Cleaning internal parts	Every six months
Check condition, and for any deformation, loosening or removed parts.	
Control	Yearly
Check mechanical part, for any breakage or deformation, tightening of screws. Check readability and condition of words, stickers and symbols and restore if necessary.	
Machine structure	Yearly
Tightening of main bolts (screws, fixing systems,	
Safety signs	Yearly
Check readability and condition of safety signs.	
Electrical connection cable and plug	Yearly
Check the connection cable (replace it if necessary).	
Extraordinary machine maintenance	Yearly
Check all gas components	

The machine is designed and built for a duration of about 10 years. After this period of time (from machine commissioning) the machine must undergo a general overhaul. Some examples of checks to be carried out are given below.

- check for any oxidised electrical components or parts; if necessary, replace them and restore the initial conditions;
- check the structure and welded joints in particular;
- check and replace bolts and/or screws, also checking for any loose components;
- check the electrical and electronic system;
- check the functionality of safety devices;
- check the general condition of protection devices and guards.



ATTENTION!

Machine maintenance, checking and overhaul operations must only be carried out by a specialised Technician or the After-Sales Service, provided with suitable personal protection equipment (safety shoes and gloves), tools and ancillary means.



ATTENTION!

Work on the electrical equipment must only be carried out by a specialised electrician or the After-Sales Service.

3.8.3 DISASSEMBLY

If the appliance has to be disassembled and then reassembled, make sure the various parts are assembled in the correct order (if necessary mark them during disassembly).

Before disassembling the machine, make sure to carefully check its physical condition, and in particular any parts of the structure that can give or break. Before starting disassembly:

- remove all the pieces (if present) in the machine;
- disconnect the power supply;
- enclose the work area;
- display a sign indicating that the machine is undergoing maintenance and not to carry out manoeuvres;
- carry out the disassembly operations.



ATTENTION!

All scrapping operations must occur with the machine stopped and cold and all the energy sources (water, gas electricity) disconnected.



ATTENTION!

To carry out these operations, appropriate PPE must be used.



ATTENTION!

During disassembly and handling of the various parts, the minimum height from the floor must be maintained.

3.8.6 DECOMMISSIONING

If the machine cannot be repaired, carry out the decommissioning operations, signalling the failure with a suitable sign, and request assistance of the manufacturer's after-sales service.

4. MACHINE DISPOSAL



ATTENTION!
DISMANTLING OPERATIONS MUST BE CARRIED OUT BY QUALIFIED PERSONNEL.



ATTENTION!
WORK ON THE ELECTRICAL EQUIPMENT MUST ONLY BE CARRIED OUT BY A QUALIFIED ELECTRICIAN, WITH THE POWER SUPPLY DISCONNECTED.

4.1 WASTE STORAGE

At the end of the product's life-cycle, make sure it is not dispersed in the environment.

Special waste materials can be stored temporarily while awaiting treatment for disposal and/or permanent storage. In any case, the current environmental protection laws in the country of use must be observed.

4.2 PROCEDURE REGARDING APPLIANCE DISMANTLING MACRO OPERATIONS

Before disposing of the machine, make sure to carefully check its physical condition, and in particular any parts of the structure that can give or break during scrapping.

The machine's parts must be disposed of in a differentiated way, according to their different characteristics (e.g. metals, oils, greases, plastic, rubber, etc.). Different laws are in force in the various countries, therefore comply with the provisions of the laws and competent bodies in the countries where scrapping takes place. In general, the appliance must be taken to a specialised collection/scrapping centre. Dismantle the appliance, grouping the components according to their chemical characteristics, remembering that the compressor contains lubricant oil and refrigerant fluid which can be recycled, and that the refrigerator components are special waste assimilable with urban waste.

The symbol  placed on the product indicates that it should **not** be considered as domestic waste, but must be correctly disposed of in order to prevent any negative consequences for the environment and the health of people. For further information on the recycling of this product, contact the local dealer or agent, the after-sales assistance service or the local body responsible for waste disposal.



ATTENTION!
Make the appliance unusable by removing the power cable.



ATTENTION!
When scrapping the machine, the "CE" marking, this manual and other documents concerning the appliance must be destroyed.

5. ENCLOSED DOCUMENTATION

- Set of test and inspection documents
- Wiring diagram
- Installation diagram