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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", "refrigerator" 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 people. 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.

A.1 General information

A.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.

A.1.2 Intended use and restrictions

Our appliances are designed and optimised in order to obtain high performance and efficiency. This appliance is designed for thawing and preservation of frozen 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!

Do not store explosive substances, such as pressurised containers with flammable propellant (🔥), in this appliance.



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.

A.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 test - functional test) is guaranteed and certified by the specific enclosures.

A.1.4 Definitions

Listed below are the definitions of the main terms used in the manual. Read them carefully before use.

Operator

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

Manufacturer

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.

A.1.5 Typographical conventions

For best use of the manual, and therefore the machine, it is advisable to know all 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 to 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 ensure 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.

A.1.6 Machine and manufacturer's identification data

The data plate gives the product identification and technical data. The data plate with all the appliance specifications is located on the chilling unit compartment, on the higher right-hand side. The plate bearing the appliance's PNC code and serial number is located on the back of the appliance.

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



Attention!

Do not remove, tamper with or make the data plate illegible.



Attention!

Refer to the details given on the data plate, for relations with the Manufacturer (e.g. when ordering spare parts, etc.).



Attention!

When scrapping the machine, the data plate must be destroyed

Electrolux Professional SPA declines any liability for 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.

A.1.7 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.

A.1.8 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.

A.1.9 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.

Phase	Protection garments 	Safety footwear 	Gloves 	Glasses 	Ear protectors 	Mask 	Safety helmet  (*)
Transport		●	○				○
Handling		●	○				
Unpacking		●	○				
Installation		●	○				
Normal use		●	●*				
Adjustments	○	●					
Routine cleaning	○	●	●*	○			
Extraordinary cleaning	○	●	●	○			
Maintenance	○	●	○				
Dismantling	○	●	○				
Scrapping	○	●	○				

Key: ● PPE required; ○ PPE available or to be used if necessary;  PPE not required.

During **Normal use**, gloves protect hands from the cold product when being placed in the appliance.

Note: The gloves to be worn during Cleaning are the type suitable for contact with the cooling fins (metal plates).

Failure to use the personal protection equipment by operators, specialised technicians or users can involve exposure to chemical risk and possible damage to health.

A.1.10 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.

A.1.11 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 (see service manual).

A.2 Technical data

A.2.1 Materials and fluids used

The areas in contact with the product are made of steel. An HFC refrigerant fluid complying with the current regulations is used in the refrigerating unit. The type of refrigerant gas used is given on the data plate.

A.2.2 Dimensions, performance and consumption

External dimensions:

width mm	27 15/16"	710
depth mm	32 7/8"	835
height mm	82 1/4"	2090

Compartment dimensions:

width mm	22 1/16"	560
depth mm	27 7/8"	707
height mm	57 1/2"	1460

Rack dimensions mm	530x650
Power supply voltage	208V/60HZ
Noise Level dBA <i>(The value could increase depending on the work station where measured)</i>	< 70

A.2.3 Mechanical safety characteristics, hazards

The appliance does not have sharp edges or protruding parts. The guards for the moving and live parts are fixed to the cabinet with screws, to prevent accidental access.

A.2.4 Climatic class

The climatic class given on the data plate refers to the following values:

▶ for high humidity, fully insulated door models

CLIMATIC CLASS: 5

43°C (EN 60335-2-89)

40°C room with 40% relative humidity (EN ISO 23953).

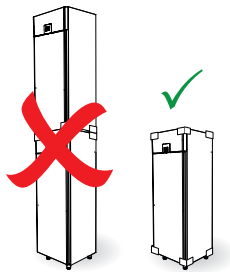
B.1 Transport, handling and storage

B.1.1 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!
Due to their size, the machines cannot be stacked on top of each other during transport, handling and storage; this eliminates any risks of loads tipping over due to stacking.



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.

B.1.2 Transport: instructions for the carrier



Attention!
Do not stand under suspended loads during loading/unloading operations.
Unauthorized 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.

B.1.3 Handling

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



Attention!
The appliances must be handled in the upright position. If the appliance is handled in a horizontal position, wait a few hours before making it operational.

B.1.4 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.

B.1.5 Shifting

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.

B.1.6 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.

B.1.7 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.

B.2 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 load bearing capacity of the lifting equipment used is suitable for its weight.

B.2.1 The customer's responsibilities

The customer must:

- ▶ arrange an earthed power socket of suitable capacity for the input specified on the data plate;
- ▶ For information regarding the electrical connection, refer to par. B.2.6 "Electrical connection";
- ▶ check the flatness of the surface on which the machine is placed.

B.2.2 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. Refer to par. "B.2.3 Positioning" for information regarding distances from any other machines present in the room (in fact, close proximity can create problems of condensate forming on the walls of the appliance), also taking into consideration the space needed for door opening.

B.2.3 Positioning

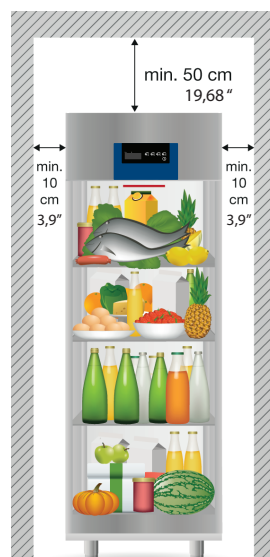
Install the appliance, taking all the safety precautions required for this type of operation, also respecting the relevant fire-prevention instructions.

Install the appliance in a ventilated place, away from heat sources such as radiators or air conditioning systems, to allow correct cooling of the refrigerating unit components.

Keep a distance of at least 50 cm/19,68" from the top and 10 cm/3,9" from sides and back. Never cover the condenser, even temporarily, as this can compromise proper operation of the condenser and therefore the appliance.

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. In order to maintain the required inside temperatures, the room temperature must not exceed +43°C.

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



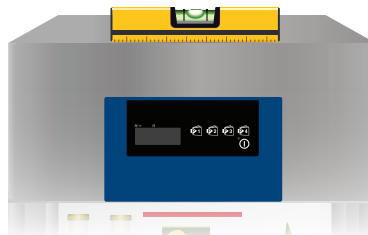
Arranging the machine:

- ▶ position the machine in the required place;
- ▶ adjust the height and level the appliance using the adjustment feet, also checking that the door closes properly (only appliances with feet)



Attention!

The appliance must be levelled, otherwise its operation could be affected.



Attention!

Wait at least 2 hours before starting the appliance, to allow the oil to flow back into the compressor.

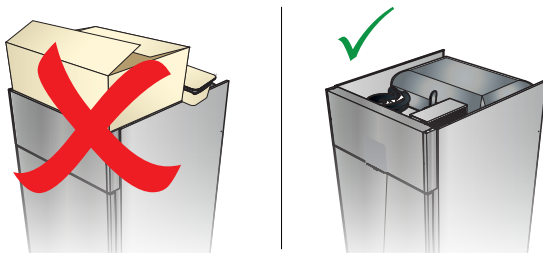


NOTE: The plug must be accessible after positioning the appliance in the place of installation.



Attention!

There must be free air circulation above the appliance, at the refrigerating unit. There must be no obstructions caused by trays, cardboard boxes, jars or other materials.



- ▶ 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 cardboard top, 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.

B.2.4 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 burned 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.

B.2.5 Reversing opening of fully insulated doors



Attention!

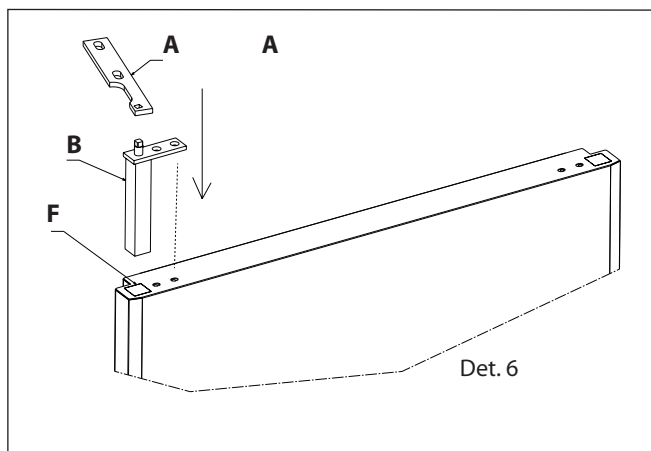
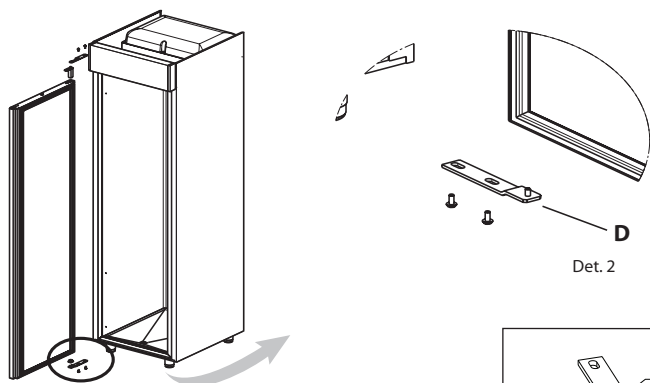
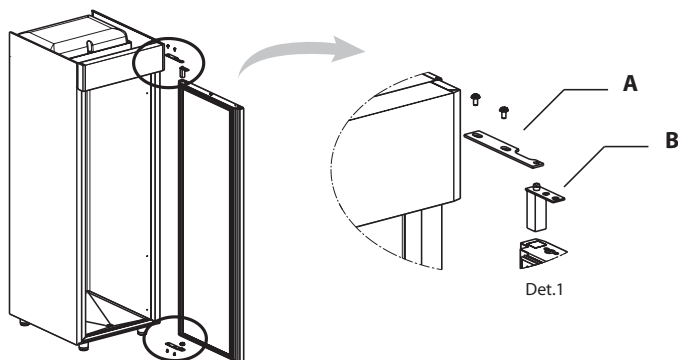
Disconnect the appliance from the power supply before carrying out the door reversing procedure.

Refrigerated cupboards are normally supplied with right opening. When changing to left opening, proceed as follows:

- ▶ open the control panel, loosening the 2 screws located between the panel and door;
- ▶ remove the cap located on the left side and refit it on the right side of the control panel.
- ▶ undo the 2 fixing screws of bracket "A" and the screw securing hinge "B" (*Detail 1*);
- ▶ remove the door and remove hinge "B" from right to left, remove the cap "F" on the opposite side and insert part "B" (*Detail 6*) and the bracket as shown in the figure.

- ▶ remove the lower bracket "D", refitting it on the opposite side in the special seat (*Detail 2*);
- ▶ position the door on the lower bracket "D";
- ▶ position the upper bracket "A" between the door and the roof of the appliance, tightening the fixing bolts;
- ▶ before tightening the screws, align the door with the panel of the cabinet, adjusting the lower and upper brackets and making sure the seal is perfectly fitted on all sides;
- ▶ then tighten the bracket fixing bolts.
- ▶ fix the control panel again, securing the 2 screws between the control panel and door

Note: After doing the above operations, the holes in the appliance must be closed with the special plastic plugs.



B.2.6 Electrical connection

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.

The information regarding the appliance power supply voltage is given on the dataplate.

Before connecting, make sure:

- ▶ the connection point has an efficient earth contact and the mains voltage and frequency match that given on the data plate. In case of doubts regarding the efficiency of the earth wire, have the system checked by qualified personnel;
- ▶ 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;
- ▶ the appliance must be permanently connected to the power supply, respecting the connections:
 - brown: phase 1
 - yellow/green: earth
 - blue: phase 2;
- ▶ a differential thermal-magnetic switch suitable for the absorption specified on the data plate, 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 sizing of the switch, refer to the absorbed current specified on the appliance data plate. **The chosen device must be lockable in the open position in case of maintenance.**

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

If the power cable is damaged, it must be replaced by the After-Sales Service or in any case by qualified personnel, in order to 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.



Attention!

The connection to the power supply network must be carried out according to the regulations and standards required by National Electric Code (NEC) and Canadian Electric Code (CEC), notes as NFPA 70



Attention!

When replacing the cable, the earth wire must be kept longer than the live and neutral wires.

B.2.7 Plumbing connection (only if it is present)

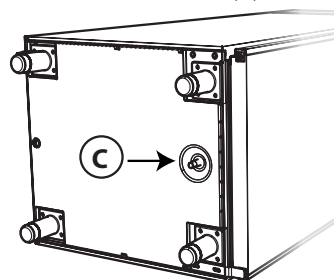


Attention!

The plumbing connection must be carried out by a specialised technician.

The machine has a drain hole for any liquids present in the compartment. Connect the compartment drain hole "C", located on the bottom of the appliance and provided with a closing plug, to a drain.

The drain hole diameter is "17.5 mm", therefore it is advisable to connect it to a "17.5 mm" drain pipe.



C.1 Operation

C.1.1 Control panel (see Fig.1)

A - Digital thermostat display

B - "ON/OFF/STOP" button

C - "DEFROST" program buttons

C.1.2 Digital thermostat display

The digital thermostat has two electronic displays: one with 3 digits for showing the temperature measured by the probe, and one with 4 digits for showing the defrost time remaining; there are also three LEDs and several icons (refer to fig.1 and section C.1.5).

C.1.3 Buttons

The digital thermostat has 5 buttons for control the instrument.

- ▶ Multifunction "ON/OFF/STOP" button : for switching the appliance on or off, and manually ending a defrost cycle.

- ▶ Buttons "P1, P2, P3, P4"



for starting a defrost cycle.

C.1.4 Switching on and activation of defrost cycles

Press the "ON/OFF/STOP" button  to activate the appliance. The machine goes to maintaining mode, at a set value. To start the required defrost cycle (P1, P2, P3, P4) press the relevant program button



The display shows the time remaining for cycle end

85:00

During a defrost cycle, press any button (except the ON / OFF button) to display the type of running program (P1, P2, etc.). The defrost cycle ends automatically, after which the machine returns to the maintaining mode. To manually end it, press the



"ON/OFF/STOP" button

To switch the appliance off, press the "ON/OFF/



STOP" button during the maintaining cycle. The temperature display shows the message "OFF".

C.1.5 Digital thermostat icons and LEDs

- LED  on indicates compressor activation; when flashing it indicates compressor delay.
- LED  on indicates activation of the defrost heating elements.
- LED  on indicates activation of the defrost and/or compartment fan.
- Icon  or  or  or  lit indicates carrying out of the defrost cycle of programs P1 or P2 or P3 or P4 respectively.
- Icon  lit indicates maintaining in progress.
- The icon  indicates the detection of an alarm; For the information on alarms, refer to the table: "Quick identification of alarms".

MESSAGE	CAUSE	OUTPUTS
"rPF"	Thermostat probe fault.	IN MAINTAINING: the compressor runs automatically at time intervals; IN DEFROST: immediate switch to maintaining.
"HA"	High maintaining temperature alarm	No action.
"HAt"	High defrost cycle temperature alarm	No action.
"LA"	Low temperature alarm	No action.

"dA"	Door open alarm.	IN MAINTAINING: the fans are switched off. IN DEFROST: the fans and heating elements are switched off.
"Pfa"	Prolonged power failure signalling	IN MAINTAINING: no action. IN DEFROST: the appliance goes to MAINTAINING.
"End"	End of a defrost cycle.	The adjustment goes to maintaining.
"PAr"	End of partial cycle if enabled by parameter "Hti"	No action.

C.1.6 Defrost



Attention! Do not use mechanical devices or other means to speed up the defrost process, unless recommended by the manufacturer.



Attention! Do not damage the circuit

► - Automatic defrost

The appliance is equipped with an automatic defrost device. This function is activated only during maintaining and not during defrost cycles. During defrost the display shows the message "dEF", whereas the bottom display shows the time remaining for defrost end.

The defrost water is run into a tray and automatically evaporated.

C.1.7 Loading the product

Distribute the product evenly inside the compartment (away from the door and back) in order to allow good air circulation. Cover or wrap food before placing it in the refrigerator and avoid putting hot foods or steaming liquids inside. Do not leave the door open any longer than necessary when loading or removing food.



**Attention!**

Do not use electrical appliances inside the appliance compartments for storing frozen food, unless such equipment is recommended by the manufacturer.

Regarding the max. load for each shelf, respect that given in the table below:

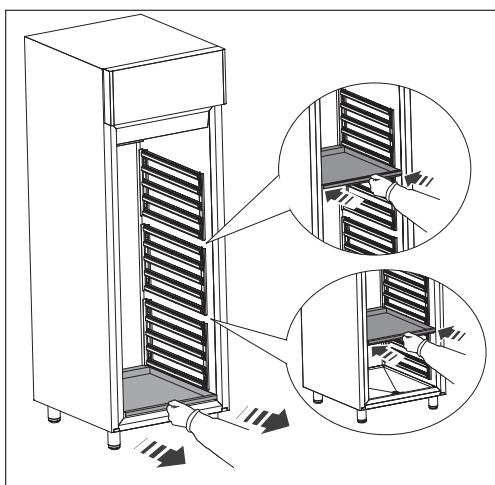
Max. shelf load	
Vertical refrigerators "Thawing Cabinets" with digital control	10 kg

**Attention!**

To avoid compromising appliance stability, the total max. load must not exceed 150 kg.

C.1.8 Dividing tray for reduced charge

In case of reduced charge it's possible to optimize the internal volume using the removable dividing tray. In case of full charge, the tray must be placed on the bottom part of the cell. The tray also has the function to be used as liquid collector.



C.2 General safety rules

C.2.1 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.

C.2.2 Protection devices installed on the machine

C.2.2.1 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;
- ▶ interlocked movable guards (door) for access inside the machine;
- ▶ machine electrical equipment access doors, made from hinged panels openable with tools. The door must not be opened when the machine is connected to 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.

C.2.3 Safety signs to be placed on the machine or near its area

Prohibition	Meaning
	do not remove the safety devices
	do not use water to extinguish fires (placed on electrical parts)
Danger	Meaning
	danger of burns
	danger of electrocution (shown on electrical parts with indication of voltage)

**Attention!**

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

C.2.4 End of use

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

C.2.5 Instructions for use and maintenance

Risks mainly of a mechanical, thermal and electrical nature exist 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.

Any anomalous situations are signalled on the control panel display.

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 this 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.

Attention!

Extraordinary machine maintenance operations must only be carried out by specialised Technicians provided with all the appropriate 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.



C.2.6 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 maintenance personnel;
- ▶ 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;
- ▶ placing in the machine any objects or things not compatible with refrigeration, freezing or preservation, or that can damage the machine, cause injury or pollute the environment;
- ▶ 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!

C.2.7 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 deemed improper 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, cold pan, cooling circuit plates and pipes)	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
Falling from above	The operator intervenes on the machine using unsuitable systems to access the upper part (e.g. rung ladders, or climbs on it)
Crushing or injury	The specialised Technician may not correctly fix the control panel when accessing the technical compartment. The panel could close suddenly.
Tipping of loads	When handling the machine or the packing containing it, using unsuitable lifting systems or accessories or with the load unbalanced
Chemical (refrigerant gas)	Inhalation of refrigerant gas. Therefore always refer to the appliance labels

C.3 Normal machine use

C.3.1 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.

C.3.2 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.

C.3.3 Operator qualified for normal machine 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 anomaly (e.g. short circuits, wires coming out of the terminal block, motor breakdowns, worn electrical cable sheathing, etc.) the operator for normal machine use must:

- ▶ immediately deactivate the machine.

D.1 Machine cleaning and maintenance



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



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).



Attention!
Use a ladder with suitable protection for work on appliances with high accessibility.

D.1.1 Routine maintenance



Attention!
Disconnect the power supply before cleaning the appliance.

D.1.1.1 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.**

D.1.1.2 Cleaning the cabinet 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. Check the power cable regularly and replace it in case of signs of wear.

Have the appliance checked periodically (at least once a year).



Attention!
Do not clean the machine with jets of water.

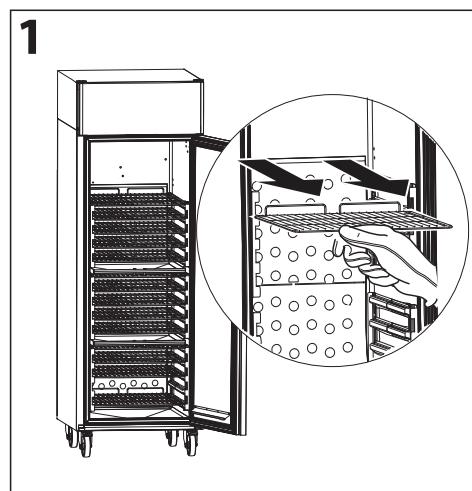


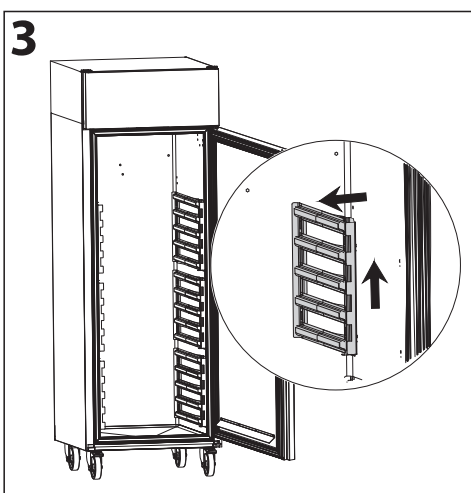
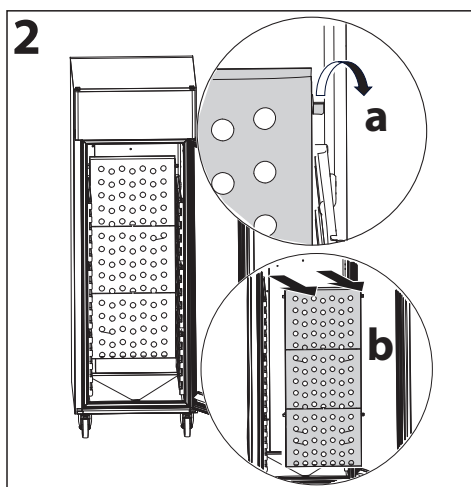
Attention!
Do not use steel wool or similar material to clean stainless steel surfaces. Do not use detergents containing chlorine, solvent-based detergents (e.g. trichloro-ethylene) or abrasive powders.



D.1.1.3 Cleaning the rack supports and internal back conveyor

The inside rack supports and the internal back conveyor can be removed and are dishwasher friendly. Do not use solvent-based detergents (e.g. trichloro-ethylene) or abrasive powders for cleaning. To remove, proceed as shown below:





D.1.1.4 Daily cleaning the cabinet

It's suggested to clean all internal parts and accessories after each thawing cycle, or at least once a day.

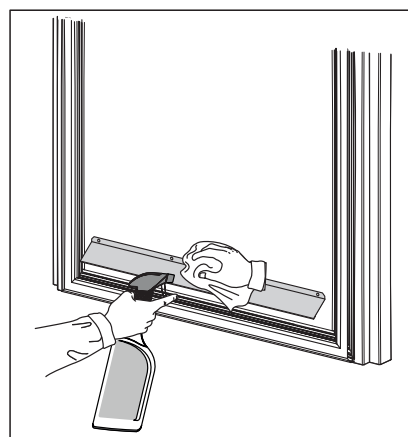
For cabinets with internal drain it's possible to remove the cap during the cleaning cycle.

For cleaning (see also parag. D.1.1.2) proceed as follows:

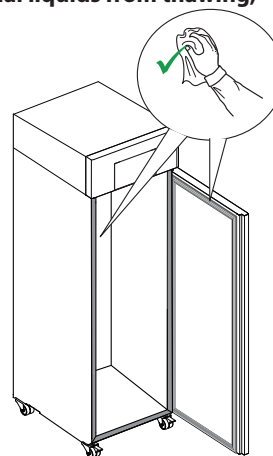
- ▶ remove the liquid basin, empty and clean it;
- ▶ remove the grids supports and wash in a dishwasher(parag. D.1.1.3);
- ▶ clean the internal cell and interior door;
- ▶ clean (if present) the inner door deflector



Pay attention to not damage the inner door deflector during the cleaning and the ordinary use of the appliance.



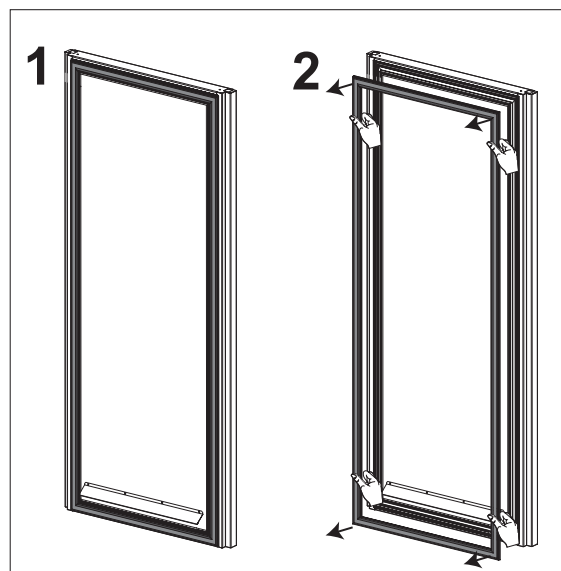
- ▶ accurately clean the door gasket and frame, in order to avoid residual liquids from thawing;

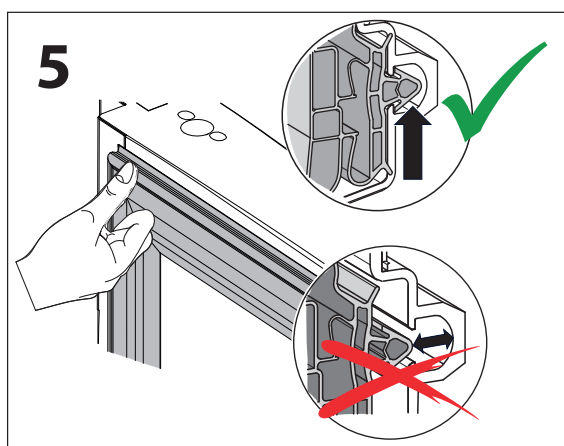
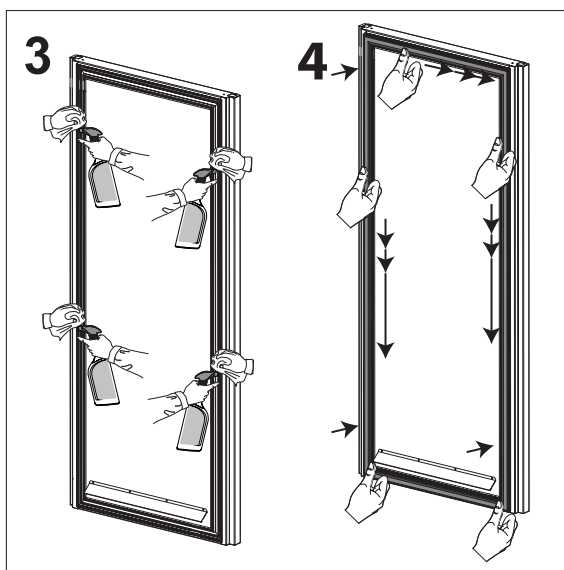


- ▶ once finished the cleaning cycle replace all accessories inside the cabinet and the drain cap;

D.1.1.5 Replacing the door gasket

Periodically check the integrity status of the door gasket and replace in case of broken. To replace the door gasket proceed as follows:





i As shown in figures 4 and 5, carefully press the gasket starting from the corners. The gasket must be inserted in its location long the whole perimeter.

D.1.1.6 Precautions in case of long idle periods

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

- ▶ remove the plug from the power socket;
- ▶ remove all food from the compartment and clean the inside and accessories;
- ▶ go over all the stainless steel surfaces vigorously with a rag moistened with paraffin oil to create a protective film;
- ▶ leave the door ajar so that air can circulate inside, preventing the formation of unpleasant odours.
- ▶ periodically air the premises.

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.



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.



D.1.2 Extraordinary maintenance

Attention!

Wear protective gloves and a mask when carrying out any extraordinary maintenance operations.



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

D.1.2.1 Periodical condenser cleaning

Periodical cleaning of the equipment depends on the frequency of its use.



Pay attention to the electrical cables!

Make sure not to obstruct the air passage on models with wire and tube condenser (located in the roof of the machine). This type of condenser does not need cleaning and does not lose efficiency over time.

D.1.2.2 Replacing the power cable

To replace the power cable, proceed as follows:

- ▶ disconnect the power supply and undo the control panel fixing screws
- ▶ lift the control panel and make sure it is locked (it is advisable to fix it with adhesive tape);
- ▶ remove the electrical box cover;

- ▶ replace the power cable;
- ▶ refit the electrical box cover , lower the control panel and tighten the panel fixing screws
- ▶ reconnect the power supply.

D.1.2.3 Quick troubleshooting guide

In some cases, faults can be eliminated easily and quickly by following a brief troubleshooting guide:

A. The appliance does not switch on:

- ▶ make sure the plug is properly inserted in power socket.
- ▶ make sure the socket is powered.

B. The inside temperature is too high:

- ▶ check the thermostat setting;
- ▶ make sure there is no heat source near the appliance;
- ▶ make sure the door closes properly.

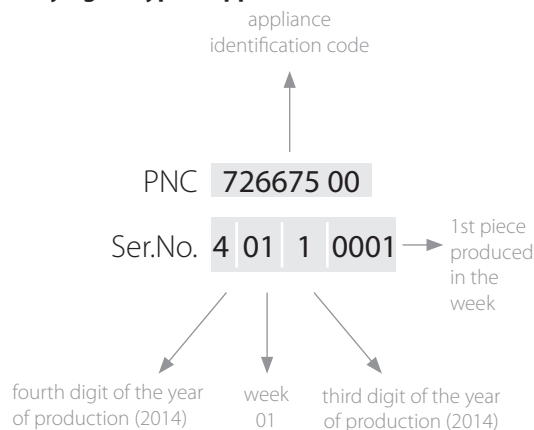
C. The appliance is too noisy:

- ▶ make sure the appliance is properly levelled. An unbalanced position can set off vibrations.
- ▶ make sure the appliance is not touching other equipment or parts which could reverberate.

If the fault persists after carrying out the above checks, contact the After-Sales Service, remembering to specify:

- ▶ the type of fault;
- ▶ the appliance PNC (production number code);
- ▶ the Ser. No. (appliance serial number).

Note: The code and serial number are essential for identifying the type of appliance and date of manufacture:



D.1.3 Maintenance intervals

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

It is advisable to stipulate a preventive and scheduled maintenance contract with the After-Sales Service.

D.1.3.1 Maintenance frequency

To ensure 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 general cleaning of machine and surrounding area	daily
Mechanical protection devices check their condition and for any deformation, loosening or removed parts	monthly
Door frame and Gasket Check the integrity status of the door frame and door gasket. Check the cleanliness of the door frame and door gasket. Replace in case broken	monthly
Control check the mechanical part, for cracks or deformation, tightening of screws: check the readability and condition of words, stickers and symbols and restore if necessary	yearly
Machine structure tightening of main bolts (screws, fixing systems, etc.) of machine	yearly
Safety signs check the readability and condition of safety signs	yearly
Electrical control panel check the electrical components installed inside the electrical control panel. Check the wiring between the electrical panel and machine parts.	yearly
Electrical connection cable and plug check the connection cable (replace if necessary) and plug	yearly
General machine overhaul check all components, electrical equipment, corrosion, pipes...	every 10 years*

(*) the machine is designed and built for a duration of about 10 years. After this period of time (from commissioning) the machine must undergo a general inspection and 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.

D.1.4 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;
- ▶ place a sign on the Main Electrical Panel 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 the electrical power supply disconnected.



Attention!
Work on the electrical equipment must only be carried out by a qualified electrician, with the power supply 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.

D.1.5 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.

D.2 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.

D.2.1 Waste storage

At the end of the product's life-cycle, make sure it is not dispersed in the environment. The doors must be removed before scrapping the appliance.

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.

D.2.2 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 regulations are in force in the various countries, therefore comply with the provisions of the laws and competent bodies in the country 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 on the product indicates that this product should not be treated as domestic waste, but must be correctly disposed of in order to prevent any negative consequences for the environment and human health.

For further information on the recycling of this product, contact the local dealer or agent, the after-sales service or the local body responsible for waste disposal.



Attention!
Make the appliance unusable by removing the power cable and any compartment closing devices, to prevent the possibility of someone becoming trapped inside.



Attention!

When scrapping the machine, the data plate, this manual and other documents concerning the appliance must be destroyed.

D.3 Enclosed documents

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