



REFRIGERATORS FOR MILK STORAGE

INSTALLATION, USE AND SERVICE MANUAL

ORIGINAL INSTRUCTION



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1 Purpose of this manual

This manual serves to provide instructions and useful recommendations for the correct installation, start up, use, maintenance and cleaning of the appliance as well as to point out any residual risks or risks arising from incorrect use.

This manual must be considered an integral part of the appliance to which it refers and as such, it needs to be kept with care.

As this manual refers to various refrigerators, its figures are to be intended for information only. Some pictures may illustrate details or parts that differ slightly from those on your appliance; this in no way modifies essential information.

The manufacturer reserves the right to update this manual, when considered necessary, at any time and without notice.

2 Safety warnings

The safe and correct use of this product requires you to follow the rules and guidelines in this manual. The manufacturer cannot be held liable for any damage arising from failure to abide by the warnings in this manual.

The product referred to in this manual is made to store milk for human consumption. No use other than that for which it was intended is permitted. Any other use is considered improper and therefore, hazardous.

Warnings and Important Safety Instructions in this manual do not cover all possible conditions and situations that may occur. It is your

responsibility to use common sense, caution, and care when installing, maintaining, and operating your appliance.

This appliance is intended to be used in household and similar applications such as:

- staff kitchen areas in shops, offices and other working environments;
- farm houses and by clients in hotels, motels and other residential type environments;
- bed and breakfast type environments;

This appliance is not intended for use by persons (including children aged less than 8 years) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

Carefully read the labels on the refrigerator; do not cover them under any circumstances and be sure to replace them immediately should they become damaged.

R-600a or R-134a is used as a refrigerant. Check the rating label inside the fridge to see which refrigerant is used for your refrigerator.

If in the refrigerator there is flammable gas (R600a refrigerant), you will find this label on the compressor.



In this case, some special precautions must be taken:

- place the refrigerator in a well sized ambient.
- do not use the refrigerator if it seems to be damaged.
- In order to avoid damages on refrigeration circuit, do not use mechanical devices or any other means to accelerate the defrosting process.
- keep ventilation openings always free.
- if refrigerant leaks from the pipe, avoid any naked flames and move anything flammable away from the product and ventilate the room immediately.
- do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.

Do not place or use electrical appliance inside the refrigerator.

In case of malfunctioning disconnect power supply from the refrigerator.

Servicing and maintenance operation on the refrigerator must be ensure and performed by qualified service personnel only.

Some points of the internal condensing unit of the refrigerator may be hot or have potentially sharp edges. Before carrying out non-routine maintenance or servicing operation, disconnect the power supply and wait for the time needed for the appliance to cool down. Always wear suitable personal protective equipment, compliant with current standards, when performing cleaning or maintenance.

Pay attention to the heated shelf (present in some models), since in steady conditions, it reaches rather high temperature.

The “Electric Shock Hazard” label found on parts, casings and/or covers serves to warn that their removal means being exposed to the danger of coming into contact with energised parts.



Do not expose the refrigerator to jets of water and never use toxic substances for cleaning.

Do not expose the refrigerator to sources of heat.

In case of fire, use extinguisher powder.

The packaging material must be disposed in compliance with current regulations.

3 Manufacturer identification

The product referred to in this manual is designed and made by

Vitrifrigo s.r.l

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61022 VALLEFOGLIA(PU) - Italia,

Tel. +39 0721 154500

Fax + 39 0721 497739

Mail info@vitrifrigo.com

4 Product identification

Each refrigerator has an identification label containing the following information:

- model
- unit identification code
- VF serial number
 - digits 1,2: Vitrifrigo plant identification*
 - digits 3,4: year of production*
 - digits 5,6: week of production*
 - digits 7,8,9,10,11,12: progressive number*
- climatic class
 - N: functioning from 16°C up to 32 °C ambient temperature*
 - 4: functioning up to 30 °C ambient temperature and 55% rH*
 - T: functioning from 16°C up to 43 °C ambient temperature*
 - 5: functioning up to 40 °C ambient temperature and 40% rH*
- power supply voltage and power frequency
- total current consumption of the refrigerator
- current consumption of the heaters (if present)
- IPX3 protection grade (only for products with heated shelves)
- refrigerant type and quantity
- expanding gas for the insulation foam
- LP/HP pressures (only for USA products)

5 General description

The product referred to in this manual is expressly designed to be coupled with coffee machines for guaranteeing the correct storage of milk at a controlled temperature.

NOTE: *refrigerator has not been designed to cool down the milk from the ambient temperature (or above).*

Some models also have cup warmer shelves, for the hot maintaining of the cups and/or glasses.

The max weight of the device (with its milk container and empty cup warmer shelves) is 20 kg.

The A-weighted emission sound pressure level of the appliance is below 70 dB(A).

6 Description of operation

The refrigerator operates using a refrigerant vapour compression cycle that transfers heat from the inside to the outside, making it possible to keep the liquid for human consumption stored inside it at a constant, pre-set temperature.

The refrigerant evaporates by removing the heat from the air via the cold inside walls of the refrigerator (in contact with the evaporator through which it flows) before entering the compressor. Here the pressure and temperature of the refrigerant are increased and it is then passed through an air-cooled condenser, where it is condensed. Lastly, the refrigerant fluid returns inside the evaporator via capillary and the cycle is repeated.

The internal temperature can be modified using the (mechanical or electronic) thermostat.

In some models there are shelves - typically made of stainless steel - heated by heating elements inserted inside them. The temperature of the shelves is generally fixed, and for each shelf there is a safety thermostat, which shut off the heating element in case of overheating.

7 Installation and use

7.1 Checking the packaging

As soon as the package arrives, inspect it, making sure that it is not upturned and that it has suffered no damage during transport. Remove the packaging and inspect the unit for damage of any kind.

If there is any doubt as to the integrity of the system parts, do not use the refrigerator.

You must inform your dealer of any damage and/or anomalies not later than 24 hours from the delivery date.

7.2 Positioning

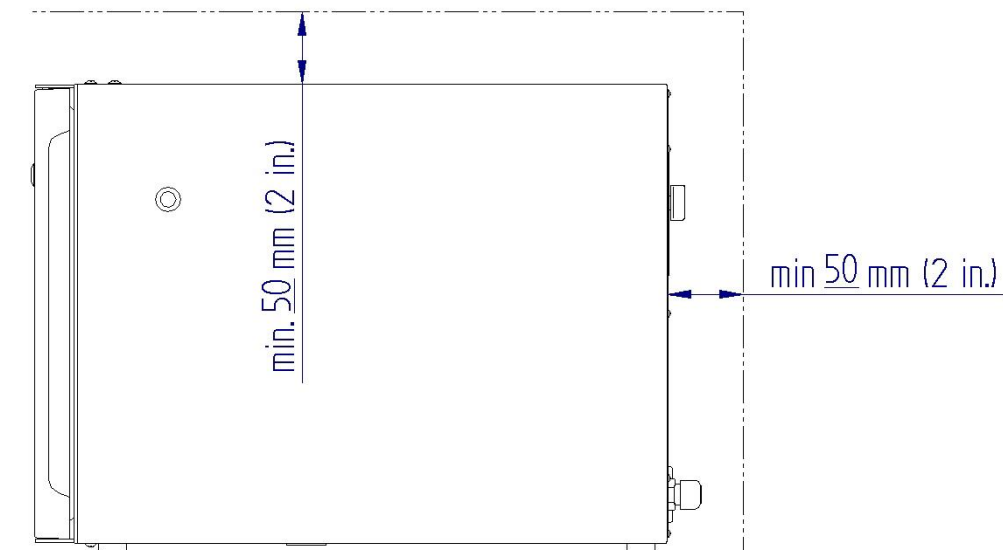
Place the refrigerator on a horizontal surface and use the adjustable feet to level it, if needed.

When positioning moving the refrigerator, be careful not to roll over or damage the power cord.

When choosing the position of the refrigerator, remember that a gap of at least 50 mm (2 in.) is required between the back panel of the refrigerator and any wall in order to allow the warm air from condensation to escape.

The same gap of at least 50 mm (2 in.) is required between the top of the refrigerator and any wall above it.

As far as any space requirements at the sides of the refrigerator are concerned, there are no specific instructions.



7.3 Electrical connection

The refrigerator is equipped with a IEC connection socket and a main power switch, generally on the back panel.



The power cord suitable for the country in which the refrigerator will be used is supplied with the product.

NOT: In some models, the power cord comes out directly from the inside of the refrigerator

Before connecting the refrigerator to the main electrical line, make sure that the supply has the same characteristics (voltage, number of phases, network frequency and amperage) as those stated on the product label.

Grounding the appliance is mandatory, therefore you must ensure that the electrical system to which the refrigerator will be connected is grounded.

The manufacturer declines all liability for any damage suffered by people or property as a result of failure to abide by the above instructions.

To connect the refrigerator to the main electrical line, insert the plug into a socket without using adaptors, multiple sockets and/or extension cords.

Do not locate multiple portable socket-outlets or portable power supplies at the rear of the appliance

7.4 Use

The refrigerator has one (or more) hole for ducting the pipe to pick up milk from the container placed inside.

NOTE: *apply the dedicate transparent cap on the not used holes.*

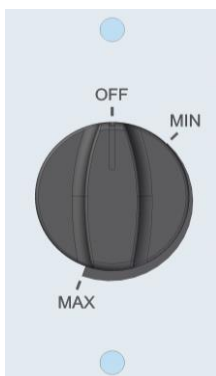
If provided, the refrigerator must be used preferably with the tank provided. If not, milk from original package can be used as alternative.

NOTE: *the milk container can be filled with milk up to its max capacity.*

NOTE: *the max weight admitted into the refrigerated compartment is equal to the weight of the milk container (full of milk).*

7.4.1 Setting (mechanical thermostat)

Some models are equipped with a mechanical thermostat, generally placed on the back panel.



In the **OFF** position, the refrigerator is switched off.

Moving the thermostat to **MIN**, will start the refrigerator.

Adjusting the thermostat towards the **MAX** you can modify – indirectly – the internal temperature.

The optimum temperature adjustment range for the application for which the refrigerator is designed, is between the **MIN** and **MAX** settings marked on the thermostat.

As the thermostat is moved closer to the **MAX** position, the temperature inside the refrigerator will become lower.

NOTE: *The refrigerator can operate at lower temperatures than the level obtained by setting the thermostat to **MAX** by turning the dial clockwise past this setting and as far as it will go. However, since these temperatures are out of the range for storing milk, the manufacturer advises against using the refrigerator in this way.*

Once switched on, the refrigerator will begin to operate, but a certain amount of time is needed (depending on external conditions as well as on the thermostat setting) for it to reach the required internal temperature.

We recommend to inserting milk inside the refrigerator only once the internal temperature has stabilized.

7.4.2 Setting (electronic thermostat)

Generally, in refrigerator models equipped with an electronic thermostat, it is located on the front panel of the product.

There are two possible versions:

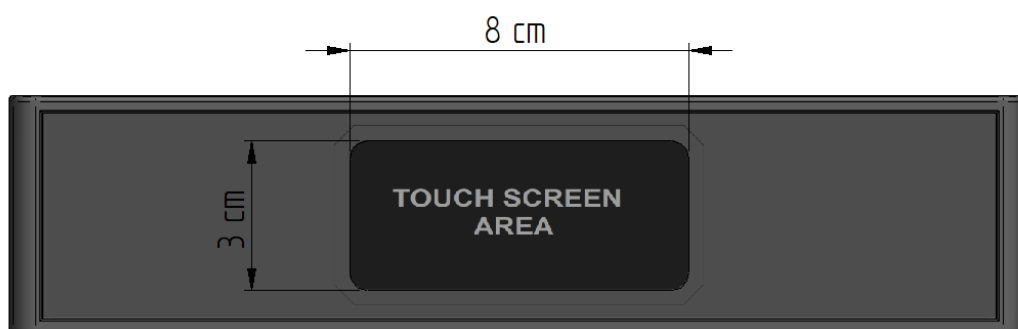
1- Exposed



2- Hidden touch



NOTE: Only the central part of the panel is touch-sensitive, covering an area of approximately 8 cm in width and 3 cm in height:



1- Exposed ON / OFF switching

When the refrigerator is switched on, but in standby mode, the thermostat's display shows alternatively OFF and the inside temperature value.

To turn on the refrigerator, hold the button  pushed for at least 3 seconds. You will see ON on the display and immediately after the inside temperature value. Holding again the same button will switch the refrigerator off.

NOTE: together with the refrigerator, also the cup warming shelf (if present) will be turned ON.

Once turned on, the fridge will start working, but it will take some time (also depending on external conditions and temperature setting) to reach the required internal temperature.

We recommend to store the pre-cooled milk inside the refrigerator approximately 10 minutes after turning it on to achieve the best results.

Temperature setting

To set the desired temperature, push the button  until you see the current set point value flashing, then adjust the value using the button  (to increase) and  (to decrease); to store the new value press again the button .

NOTE: To ensure that the milk is always maintained at temperature allowed by the HACCP, the setpoint can be varied only within a specific values range.

Heated shelf for cup warming (if present)

Cup warming shelf is connected to a dedicated ON/OFF switch or to the electronic thermostat of the refrigerator.

In the first case, push the ON/OFF switch to activate/deactivate the heaters.

In the second case, hold the  button for 1 second.

When the cup warmer module is turned on, “AUX” text is displayed on the thermostat.

The shelf will begin heating, and it will reach its steady-state temperature after 10 minutes.

Then, you can place mugs and/or cups, paying attention to the high temperature of the shelf.



2- Hidden touch ON / OFF switching

When the refrigerator is powered but in standby mode, the thermostat display shows the icon .

To turn on the refrigerator, press and hold the icon for 3 seconds. During this time, the thermostat will emit a sound, and a clockwise animation will appear on the display. Once the animation is complete, the refrigerator will turn on, and the internal temperature will be displayed.



To turn off the refrigerator from the temperature screen, swipe left or right until you reach the screen with the icon. .



Press and hold the icon for 3 seconds. During this time, the thermostat will emit a sound, and a clockwise animation will appear on the display.



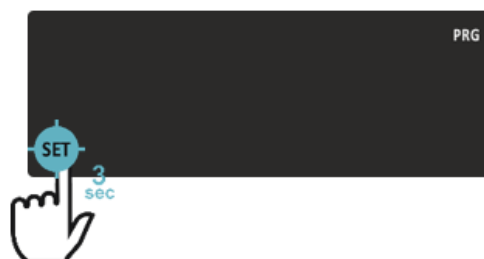
Once the animation disappears, the refrigerator will turn off, and a screen displaying only the icon will appear .

Once turned on, the refrigerator will start operating, but it will take some time (depending on external conditions and thermostat settings) to reach the required internal temperature.

We recommend to store the pre-cooled milk inside the refrigerator approximately 10 minutes after turning it on to achieve the best results.

Temperature setting

To set the desired internal temperature, swipe left or right until you reach the screen where the text **SET** is displayed in the lower-left corner.



Press on the text **SET** and select the desired internal temperature by scrolling up and down on the displayed numbers.



Press again to save the selection **SET**. A confirmation sound will be heard, and the thermostat will return to the previous screen.

To return to the screen displaying the internal temperature, swipe left or right until you reach the desired screen.

NOTE: *The set point can only be adjusted within a specific range of values, depending on the type of application for which the refrigerator was designed.*

Thermostat lock function

The device features a function to lock touch inputs. To lock the device, navigate to the temperature display screen and swipe from top to bottom. When the "LoC" message appears on the screen, press the center of the "o" to enable the function.



The device will emit a confirmation sound.

When the lock function is enabled, any gesture performed on the thermostat will produce a visual error message ("LoC") and an error sound, except for the unlocking gesture.

To unlock the device, swipe from top to bottom. When the "UnL" message appears on the screen, press the center of the "n" to disable the function.



The device will emit a confirmation sound.

Heated shelf for cup warming (if present)

When present, the heating shelves are connected to a dedicated ON/OFF switch or to the refrigerator's electronic thermostat.

In the first case, to activate or deactivate their operation, simply use the dedicated ON/OFF switch.

In the second case, you need to adjust the thermostat: Swipe left or right until you reach the screen where the text is displayed **AUX**.



Press and hold the text **AUX** for 3 seconds. During this time, the thermostat will emit a sound, and a clockwise animation will appear on the display. Once the animation is complete, the heating shelf will be turned on, and a white line will appear above the text **AUX** to indicate the "on" status.



To return to the screen displaying the internal temperature, swipe left or right.

NOTE: when the heating shelf is turned on, the text **AUX** will also appear on the screen displaying the internal temperature.



The shelf will begin to heat up, reaching its operating temperature after about 10 minutes.

Place the cups with the opening in contact with the heated shelf. This operation should be carried out with particular care, as the shelf, once at operating temperature, reaches quite high temperatures.

To turn off the heating shelf, swipe left or right until you reach the screen where the text is displayed **AUX**.

Press and hold the text **AUX** for 3 seconds. During this time, the thermostat will emit a sound, and a clockwise animation will appear on the display. Once the animation is complete, the heating shelf will be turned off, and the white line above the text **AUX** will disappear to indicate the "off" status.



7.4.3 Milk level sensor functioning (if present)

The level sensor detects the presence of milk in the container and generates an alarm when the level falls below a certain level (generally between 0.5 l and 1 l) of milk.

If the sensor is connected to the digital thermostat, the alarm is displayed by a flashing "AS" or "EAL" sign and by a buzzer too.

In some products, the sensor signal comes out from the refrigerator (through a connector) and is connected directly to the coffee machine.

7.5 Defrosting

If the refrigerator is left to operate for very long periods of time, it is possible for ice to form on its inside walls.

If the ice becomes considerably thick, it is advisable to defrost the refrigerator, to continue to guarantee good appliance efficiency and avoid higher electricity consumption.

To defrost the appliance, switch it off; we recommend to leave the refrigerator door open to speed up this operation.

Never use tools or any type of utensils to remove ice, this could damage the evaporator, which is in contact with the inside walls of the refrigerator. The manufacturer cannot accept any liability for damage to the appliance caused by failure to abide by this recommendation.

NOTE: During defrosting operation, do not leave the milk container inside the refrigerator.

At the end of the defrosting operation, after cleaning and thoroughly drying the inside walls of the refrigerator, switch it on.

7.6 Cleaning and maintenance

Under the current regulations regarding health and safety, the operator is responsible for the hygiene of food contact materials and must maintain and clean the unit, preventing the bacteria formation.



CAUTION

Disconnect from supply
source before servicing

Before performing any cleaning and / or maintenance operation, disconnect the electrical supply to the refrigerator.

This important information is written on a plate placed on the back of the product.

The outside of the refrigerator (plastic coated steel) can be washed first with warm water and then rinsed in cold water and dried with a soft cloth. Do not use abrasive products.

To clean the inside of the refrigerator, after removing any containers of milk or similar liquids for human consumption, wipe with warm water and if necessary, a little vinegar to remove any grease. Rinse with clean water and dry with a soft cloth. Never use abrasive products, detergents or soap.

It is also advisable to make sure that the air-cooled condenser of the refrigerating unit at the back of the appliance is clean.

If it is particularly clogged with dust, this should be removed using a vacuum cleaner.

In case of a prolonged period of disuse, we advise you to disconnect the refrigerator from the power supply, empty it completely, clean it and leave the door slightly open to prevent the formation of mold and/or unpleasant smells.

7.7 Non-ordinary maintenance and service operation

Servicing and maintenance operation on the refrigerator must be ensure and performed by qualified service personnel only.

Access to the service area is permitted only for persons with knowledge and practical experience with the unit, especially

regarding safety and hygiene. They need be equipped with the right personal safety devices.

The refrigerator must be set up such that care and maintenance are not hindered.

8 Disposal

If the refrigerator needs to be placed out of service, it must not be disposed of as household waste but taken to a refuse recycling centre. This is shown by the  symbol on the product label.

Use specialist waste collection centers that are certified according to current standards.

If not correctly disposed of, the product can be harmful to the environment due to the specific substances it contains. The refrigerant inside the system must not be disposed of with normal waste.

Incorrect disposal or illegal dumping of the product will lead to severe legal penalties of an administrative and/or criminal nature, as envisaged by current laws.

9 Warranty claims

The warranty period starts from the date of delivery to the final user.

The vendor should always be afforded the opportunity to rectify errors within an appropriate period.

Claims that exceed the above terms, in particular damage claims as a result of consequential damage, are excluded to the extent that this is legally permissible.

Material defects shall be reported to the vendor immediately and in writing.

No warranty is provided:

- on any parts subject to natural wear and tear. These include the milk container, the parts carrying milk and the front door's seal.
- for malfunctions due to the effect of the weather, chemical, electrochemical or electrical effects.
- if malfunctions occur as a result of failure to follow handling instructions and regulations, maintenance and care of the unit.
- if malfunctions occur as the result of use non original replacement parts or incorrect assembly by the purchaser or by third parties or by faulty or negligent treatment.
- if improper modifications are made without our consent or in case of repair or reconditioning work on the part of the purchaser or by third parties.
- in respect of faults caused by inappropriate or improper use.

10 Troubleshooting

The following table serves to provide some suggestions concerning the checks to be made in case of incorrect refrigerator operation.

If, after completing the suggested checks, the refrigerator is still not operating regularly, contact your nearest assistance service.

Problem	Probable Cause	Solution
The refrigerator does not start	Power supply	Make sure that the power cord is correctly plugged into the power socket
		Make sure that the automatic breaker on the system's electrical panel is on
		Make sure that the power cord is not damaged and/or broken
	Thermostat	Make sure that the digital thermostat is set to "ON"
The refrigerator is noisy	Position	Make sure that the refrigerator has been properly levelled
		Make sure that the refrigerator is not in contact with furniture or other items that might increase its vibrations
	Refrigerant pipes	Make sure that the pipes and / or components of the refrigerant circuit are not touching. This is a check that must only be carried out by a specialist service technician
The cooling power of the refrigerator is not sufficient	Door closure	Make sure that the door is correctly closed and also that the gasket is not damaged in any point
	Position	Make sure that the refrigerator is not too close to heat source
	Condenser	Make sure that the refrigerator is positioned in order that the condenser air can be discharged correctly
		Make sure that the condenser fan is rotating correctly
		Check the condenser for dust and clean it if necessary
	Defrosting	Make sure that the inside of the refrigerator is not excessively covered of ice. Defrost it if necessary
	Thermostat	Make sure that "AUX" is displayed in the digital thermostat
The cup warmer does not work	Power supply	Make sure that the electrical connection is not damaged. This is a check that must only be carried out by a specialist service technician.