

590LW



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Read this instruction manual before using and keep it available at all times!

This instruction manual contains information about installation, operation and maintenance of the appliance and constitutes an important source of information and reference guide. The knowledge of all operational and safety instructions included in this manual is a prerequisite for safe and proper handling of the appliance. Additionally, accident prevention, occupational health and safety, and legal regulations in force in the area the appliance is used apply.

Before you start using the appliance, especially before turning it on, read this instruction manual in order to avoid personal injuries and property damages. Improper use may cause damage.

This instruction manual forms an integral part of the product and must be stored in an immediate vicinity of the appliance and be available at all times. The instruction manual should be transferred together with the appliance.

1 Safety

This appliance has been manufactured in accordance with technical standards currently in force. However, the appliance may be a source of hazards if used improperly or contrary to its intended purpose. All persons using the appliance must consider information included in this instruction manual and observe safety instructions.

1.1 Explanation of Signal Words

Important safety instructions and warning information are indicated in this instruction manual with appropriate signal words. You must strictly follow the instructions, to prevent accidents, personal injuries and property damages.



DANGER!

The signal word **DANGER** warns against hazards that lead to severe injuries or death if the hazards are not avoided.



WARNING!

The signal word **WARNING** warns against hazards that may lead to moderate or severe injuries or death if the hazards are not avoided.



CAUTION!

The signal word **CAUTION** warns against hazards that may lead to light or moderate injuries if the hazards are not avoided.

IMPORTANT!

The signal word **IMPORTANT** indicates possible property damages, which may occur if safety instructions are not observed.

NOTE!

The symbol **NOTE** indicates subsequent information and guidelines for the user on usage of the appliance.

1.2 Safety instructions

Electrical Current

- Too high a mains voltage or incorrect installation may cause electric shock.
- The appliance may be connected only if data on the rating plate correspond with the mains voltage.
- To avoid short-circuit, the appliance should be kept dry.
- If there are malfunctions during operation, disconnect the appliance from the power supply.
- Do not touch the appliance's plug with wet hands.
- Never take hold of the appliance if it has fallen into water. Immediately disconnect the appliance from the power supply.
- Any repairs or housing opening may be carried out by professionals and relevant workshops only.
- Do not transport the appliance, holding it by the power cord.
- Do not allow the power cord to come into contact with heat sources or sharp edges.
- Do not bend, pinch nor knot the power cord.

- Always completely unwind the power cord.
- Never place the appliance or other objects on the power cord.
- Always take hold of the plug to disconnect the appliance from the power supply.
- Check the power cord regularly for damage. Do not use the appliance if the power cord is damaged. If this cable is damaged, it must be replaced by customer service or a qualified electrician in order to avoid dangers.

Fire hazard / flammable materials hazard / explosion hazard!

- Do not use any electric devices in the appliance.
- Do not store nor use petrol or other flammable liquids and gases in the vicinity of this or any other appliance. Those gases may cause fire or explosion hazard.
- Do not put into the appliance any explosive materials, like sprays filled with flammable propellants. Contents of containers filled with flammable gases and liquids may leak in low temperatures, and the contents may catch fire from sparks generated by an electric appliance. Explosion hazard!
- In the case of coolant leakage, pull the plug from the socket. Remove all sources of ignition in the vicinity, ventilate room and contact technical service. Avoid coolant getting in contact with eyes, as it may cause serious eye damage.
- Never use any flammable liquids for cleaning the appliance or its parts. Gases released may cause fire or explosion hazard.
- In the case of fire, disconnect the appliance from the power supply before attempting adequate fire-extinguishing actions.
- Never attempt to extinguish fire with water if the appliance is connected to the power supply. Following extinction of fire, ensure sufficient fresh air inflow.
- Defrosting process may not be sped up with mechanical means or heat energy sources (candles or heaters) nor with any other means. Vapour produced may cause short-circuit and too high temperatures may damage the appliance.
- All ventilation slots should not be obstructed during operation.
- Never attempt to damage cooling installation of the appliance.

Safety

Operating Personnel

- The appliance may only be operated by qualified personnel and trained specialist personnel.
- This appliance may not be operated by persons (including children) with limited physical, sensory or mental capabilities, nor by persons with limited experience and/or limited knowledge.
- Children should be supervised to ensure that they are not playing with or switching on the appliance.

Improper Use

- Unintended or prohibited use may cause damage to the appliance.
- The appliance may only be used when its technical condition is flawless and allows for safe operation.
- The appliance may only be used when all connections are executed according to rules of law in force.
- The appliance may only be used when it is clean.
- Use only original spare parts. Never attempt to repair the appliance on your own.
- Do not introduce any changes in the appliance nor modify it.

- Do not drill hole in the appliance nor install any objects on it.
- Do not place any heavy objects on the appliance.

1.3 Intended Use

As described below, every use of the appliance for a purpose differing and/or diverging from its intended standard use, is prohibited and considered to be an unintended use.

The following is an intended use:

- Cooling and preparation of suitable beverages and food products.

1.4 Unintended Use

An unintended use may lead to personal injuries or property damages caused by hazardous voltage, fire or high temperature. The appliance may only be used to perform tasks described in this instruction manual.

The following is an unintended use:

- Storing flammable or explosive objects and liquids, such as ether, petroleum or adhesives;
- Storing explosive materials, like sprays filled with flammable propellants;
- Storing pharmaceutical products or preserved blood;
- Storing live pets.

2 General information

2.1 Liability and Warranty

All information and instructions in this instruction manual account for legal regulations in force, current level of technical engineering knowledge as well as our expertise and experience, developed over the years. If special models or additional options are ordered, or state-of-the-art technical solutions were implemented, the actual scope of delivery of the appliance may, in some circumstances, differ from descriptions and numerous drawings in this instruction manual.

The manufacturer is not liable for any damages nor faults stemming from:

- failure to observe instructions,
- unintended use,
- technical alterations introduced by the user,
- usage of unapproved spare parts.

We reserve the right to introduce technical modifications to the product, intended for improvement of the appliance and its performance.

The warranty period for this appliance is 24 months, counted from the purchase date.

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2.2 Copyright Protection

This instruction manual, and texts, drawings and images included in it, as well as its other components are copyright protected. It is prohibited to reproduce this instruction manual (including its excerpts), in any form and by any means, and to use and/or transfer its content to third parties without manufacturer's written permission. Violation of the above results in obligation to pay compensation. We reserve the right to claim further damages.

2.3 Declaration of Conformity

The appliance meets the currently applicable standards and guidelines of the European Union. We confirm the above in the EC Declaration of Conformity. We may provide relevant Declaration of Conformity upon request.

3 Transport, Packaging and Storage

3.1 Delivery Check

Immediately upon reception, check the delivery for completeness and possible shipping damage. In the case of visible transport damage refuse to accept the appliance or accept it conditionally. Mark and note the scope of damage in shipping documents/consignment list of the shipping company and lodge a complaint. Concealed damage must be reported immediately upon its discovery, as compensation claims may only be filed within applicable time limits.

If you find that parts or accessories missing, please contact our Customer Service Department.

3.2 Packaging

Do not dispose of the appliance cardboard box. It may be used to store the appliance when relocating or when shipping the appliance to our service point in the case of any damages.

The packaging and its elements are made of recyclable materials. Particularly, these are: plastic films and bags, cardboard box.

When disposing of the packaging, observe applicable domestic regulations. Recyclable packaging materials should be recycled.

3.3 Storage

Leave the packaging closed until installation of the appliance; observe external indications concerning method of placing and storage. Store the packaging in the following conditions only:

- in closed rooms;
- in dry and dust-free surrounding;
- away from aggressive agents;
- in a location protected against sunlight;
- in a location protected against mechanical shocks.

In the case of extended storage (over three months), make sure you check the condition of the packaging and the parts regularly. If needed, replace the packaging with a new one.

4 Technical Data

4.1 Technical Specifications

Name:	Refrigerator 590LW
Art. No.:	700907
Material:	Steel, painted
Inner material:	Plastic ABS
Volume, in l:	446
Gastronorm:	2/1 GN
Temperature range in °C:	0 - 8
Ambient temperature, min.–max., in °C:	10 - 25
Coolant, amount in kg:	R600a / 0,070
Climate class:	3
Energy consumption, in kWh/year:	329
Energy efficiency class:	A (EU Nr. 2015/1094-IV)
Number of doors:	1
Number of shelves:	5
Shelves dimensions (W x D), in mm:	4 x 660x525 / 1 x 615x190
Load-bearing capacity of each shelf in kg:	20
Power supply:	0,128 kW 220-240 V 50 Hz
Dimensions (W x D x H) in mm:	780 x 770 x 1.900
Weight in kg:	95,2

We reserve the right to implement technical modifications!

Version / Characteristics

- Cooling: circulating air
- Temperature control: digital
- Control: touch
- Automatic defrost function
- Evaporation of condensed water
- Insulation: cyclopentane C5
- Digital display
- ON/OFF button
- Indicator light: ON/OFF
- Door type: leaf door
- right side, changeable door hinge
- self-closing door
- Type of shelves: grille, steel, coated with plastic
- Height-adjustable shelves
- Appliance locked with a key

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More information on the appliance is available in our website www.bartscher.com or, pursuant to the Regulation (EU) 2015/1094-IV, in our product data base at <https://energy-label.ec.europa.eu/>. Enter article number for a given model.

4.2 Functions of the Appliance

The appliance is designed for cooling and storage of suitable beverages and food products.

4.3 List of Components of the Appliance



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Delivery without the contents!

Fig. 1

- | | |
|----------------------------------|-------------------------------|
| 1. ON/OFF button | 2. Lock |
| 3. Digital temperature regulator | 4. Door seal |
| 5. Door | 6. Storage grille bottom (1x) |
| 7. Feet (4x) | 8. Shelves (4x) |
| 9. Shelf guides | 10. Housing |
| 11. Fan | |

5 Installation and operation

5.1 Installation



CAUTION!

Incorrect installation, positioning, operation, maintenance or misuse of the appliance may lead to personal injury or property damage.

Positioning and installation, as well as repairs may be performed by authorised technical service only and in compliance with the applicable national law.

NOTE!

The manufacturer disclaims all liability and provides no warranty for damages, which may be attributed to non-observance of regulations or incorrect installation.

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Unpacking / Positioning

- Unpack the appliance, remove all external and internal packaging elements and shipment safeguards.



CAUTION!

Choking hazard!

Prevent children from accessing package materials, for instance: plastic bags and EPS.

- If the appliance is covered with a protective film, remove it. Remove the film slowly, so no glue residues are left. Remove any glue residues with the use of a suitable solvent.
- Be careful not to damage the rating plate and warning labels fixed on the appliance.
- **Never** place the appliance in humid or wet environment.
- Place the appliance in a way making the connections easily accessible, so that they may be quickly disconnected if such a need arises.
- The appliance should be placed on surfaces that are:
 - even, with sufficient bearing capacity, resistant to water, dry and resistant to high temperatures;

Installation and operation

- sufficiently large, and thus enabling usage of the appliance with no problems;
 - easily accessible;
 - well ventilated.
- Do not place the appliance in direct sunlight or in the vicinity of heat sources (cooker, radiator, heating devices, etc.). Heat sources may negatively affect power consumption, and restrict functions of the appliance, too.
 - Place the appliance so that sufficient air circulation is ensured. Leave 10 cm clearance from walls and other objects.
 - In order to avoid damage to the compressor, do not tilt the appliance more than 45° when positioning or transporting it.
 - If the appliance is to be relocated, follow the instructions below:
 - switch the appliance off;
 - disconnect the plug from the socket;
 - take out contents of the appliance;
 - tape firmly all loose elements in the internal chamber and tape the door;
 - the appliance may only be transported in vertical position.
 - Do not position the appliance in high humidity locations. Air relative humidity in the place of installation should not exceed 60%. Excessive humidity may cause rust and influence negatively the refrigerating efficiency of the device.
 - The appliance should be installed only in rooms, in which ambient temperature falls within the range of 10°C – 25°C.

Changing the hinge side

WARNING!

Before changing the door's hinge side, disconnect the appliance and pull the plug out of the socket.

Do not place the appliance in horizontal position in order to change the door's hinge side.

The hinges may be changed from right to left, as needed. Engage at least one more person to change the door's hinge side.

NOTE!

Detailed instruction of changing the hinge side may be requested. Please contact our technical service.

Power supply connection

- Verify if technical data of the appliance (see rating plate) correspond with the local electric power grid specification.
- Connect the appliance to a single, properly grounded mains socket with protective contact. Do not connect the appliance to a multi-socket.
- The power cord should be laid in a way preventing anyone from threading on it or tripping against it.

- Prior to first use, the appliance should be installed and left standing upright for at least 12 hours, before it is connected to power supply.
- After a power failure or when the plug is removed from the socket, do not reconnect the appliance to power supply for at least 5 minutes.

5.2 Operation

Tips for the user

- Shelves may be positioned at various heights. Arrange them adequately to the size of beverage/containers with food product, so that the inner space of the appliance is used optimally.
- Beverages and food products in containers should be arranged on the shelves so that proper distances between them allow for sufficient air circulation inside the appliance. Insufficient distances hinder the cooling effect.
- To limit loss of cold air minimize the opening time of door during operation. Also, do not open the door too frequently.
- If possible, in the event of a sudden power failure, avoid opening doors in order to avoid loss of cool air.
- The power supply to the refrigerator should not be interrupted for more than 10 minutes.
- If the appliance is switched off for a longer period of time, the door of the refrigerator should remain open.

Storing food in the refrigerator

For your appliance to operate the best way, follow the indications below:

- When inserting the food products, pay attention to free air circulation inside the appliance.
- Food products or beverages should first be cooled to the suitable storage temperature.
- If the food products are not cooled sufficiently prior to storing, the operating efficiency of the appliance deteriorates and it may negatively influence the cooled food products. Thus, avoid storing food products in rooms that are not cool, for the cold might be lost when they are inserted in the refrigerator.
- The food products stored in the refrigerator should be packaged or covered.
- The food products with specific aromas, e.g.: fresh fish, foie gras, cheese, should be stored in properly closed containers.
- Do not store bananas in the refrigerator because they are sensitive to low temperatures.

Preparation of the appliance







1. Prior to first operation, clean the appliance and its equipment according to instructions in section **6 “Cleaning”**.
2. Finally, dry the appliance and accessories thoroughly.
3. Introduce the shelves into the appliance at the selected height.
4. Level the device with the height-adjustable feet.
5. Close the appliance door.
6. Plug the appliance into a suitable single socket.

Functions of operating elements and displays



1.		LED fan indicator LED on: the fan is operating LED blinks: delay after defrosting
2.		LED defrosting process indicator LED on: defrosting in progress LED blinks: dripping in progress
3.		LED compressor indicator LED on: compressor off LED blinks: <ul style="list-style-type: none"> - setting the parameters of cooling mode in progress - compressor fuse triggered
4.		Digital display
5.		LED energy-saving mode indicator LED and digital display are on: the energy-saving mode is activated LED and digital display are off: the appliance is in a "Standby" mode Press the button to activate the display
6.		LED indicator of Celsius scale LED on: the temperature measurement unit are degrees Celsius

Installation and operation

7.		LED indicator of Fahrenheit scale LED on: the temperature measurement unit are degrees Fahrenheit
8.		LED ON/Standby indicator LED on: the appliance is off (Standby)
9.		Setting value increase button — manual defrosting
10.		Setting value decrease button
11.		ON/OFF / Standby switch
12.		Programming Button


General information


The appliance may feature the following status:


- **ON:** The appliance is connected to the power supply and switched on with the ON/OFF switch. The temperature regulator may be activated then.
- **Standby:** The appliance is connected to the power supply, but the very appliance is switched off by the software; the temperature regulator is switched off.
- **OFF:** The device is not connected to the power supply.


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Switching the appliance ON/OFF

1. Plug the appliance into a suitable single socket.
2. Switch the appliance on using the ON/OFF switch at the front of the appliance. The switch integrated operation indicator light (green) comes on.
3. Make sure that the digital temperature controller buttons are not blocked and there are no on-going processes (defrosting, cooling, etc.).
4. Press and keep the  button pressed for 4 seconds.

The  LED control light flashes and the appliance switches to the Standby mode.

The  LED control is on for as long as the appliance remains in this mode.

5. Again, press and keep the  button pressed for 4 seconds, to switch the appliance to the ON mode.

Button locking/unlocking

Button locking:

1. Make sure, there is no process in progress.
2. Do not enter any data for 30 seconds: the 'Loc' message will be shown in the digital display for 1 second and the keypad will be automatically locked.

When the keypad is locked, the following functions are not available:

- switching the appliance ON/OFF
- displaying the temperature measured by the probe
- activating the manual defrosting process
- setting the working temperature

If you attempt to introduce these settings, there will be the 'Loc' message shown on the display for 1 second.


3. Unlock the buttons before you attempt to introduce the data.
4. To unlock the buttons, press and hold one of the buttons for 2 seconds.

The 'UnL' message will be shown on the display for 1 second.

Digital display

When the appliance is switched on and in standard work mode, the digital display shows the temperature inside the appliance. This is not the case for the defrosting process, when the digital display shows the 'dEF' message.

When the appliance is switched off with the ON/OFF switch, the digital display is also OFF.

When the appliance is in the 'sleep' mode, the  LED indicator light is on.


Automatic defrosting

The defrosting process is carried out automatically through evaporation of water. By factory default setting, the appliance is set to execute the defrosting cycle every 6 hours.


The first defrosting cycle is commenced, when the appliance is switched on for the first time.

The defrosting lasts for 20 minutes. The next defrosting cycle is commenced after 6 hours.

Manual defrosting activation


1. Make sure that the buttons are not blocked and there is no process in progress.
2. Press and keep the  button pressed for 5 seconds.

The defrosting is activated immediately.



The defrosting  LED indicator light is lit and remains on as long as the defrosting process lasts.

The next defrosting process is commenced after 6 hours.


Modification/setting of the set temperature


1. Make sure that the buttons are not blocked and there is no process in progress.
2. Press the  SET picture briefly.

The  LED indicator light blinks.

3. Within 15 seconds, press the  or  button briefly.

The digital display shows the parameters: r1 (min. temperature) and r2 (max. temperature).

4. To confirm, press the  button briefly or refrain from inputting any data for 15 seconds.

The  LED indicator light goes off and the appliance finishes the settings.

NOTE!

If additional parameter settings are necessary, contact technical service.

6 Cleaning and Maintenance

6.1 Safety Instructions for Cleaning

- Before cleaning, disconnect the appliance from the power supply.
- Leave the appliance to cool down completely.
- Make sure water does not enter the appliance. Do not immerse the appliance in water or other liquids during cleaning. Do not clean the appliance with a pressurized water jet.
- Do not use any sharp or pointed, nor metal implements (knife, fork, etc.). Sharp or pointed implements may damage the appliance, and when in contact with live parts, they may cause electric shock.
- For cleaning, do not use any scouring agents that contain solvents nor corrosive cleaning agents. They may damage the surface.

6.2 Cleaning

1. Clean the appliance regularly.
2. Remove all objects from the appliance and store them temporarily in a cool room.
3. Remove all shelves from the appliance.
4. Clean the shelves with mild washing agent and soft cloth or sponge in warm water.
5. Rinse the shelves with clean water and dry thoroughly with soft cloth.
Note: Never use hot water to clean the appliance.
6. Wipe the internal and external surfaces of the appliance with a soft, damp cloth. Use mild cleaning agent if required.
7. Wipe the washed surfaces with a cloth moistened in clean water.
8. Clean the door and the door seal of the appliance with a soft, damp cloth and mild cleaning agent.
9. Finally, dry thoroughly all washed surfaces.
10. Regularly remove dust and fibres from the rear wall of the appliance with a soft brush or dust brush.
11. After cleaning, leave the door open for the appliance to dry completely.
12. When the appliance is to be unused for a longer time, clean it according to the instructions above. Leave the appliance open to prevent generation of unpleasant odours inside.

6.3 Maintenance

The following operations should be regularly performed by a qualified specialist:

- cleaning the condenser with suitable tools (vacuum cleaner or soft brush);
- checking of electrical connections;
- checking of the thermostat and the sensor.

7 Possible Malfunctions

The table below contains descriptions of possible causes and solutions to malfunctions or errors during operation of the appliance. When malfunction cannot be removed, contact the technical service.

In such a case, provide article number, model name and serial number. These data may be found in the rating plate.

Error	Possible cause	Solution
No functions available.	Plug improperly inserted into a socket.	Remove the plug and insert it properly in the socket.
	Electric power supply safety fuse damaged.	Check the fuse, connect the appliance to another socket.
	No power supply.	Check electric power supply.
	Damaged socket.	Plug the appliance into a another grounded socket.
	Damaged mains power plug.	Contact the service company.
The appliance is on, but the temperature is too high/low.	Too much ice on the evaporator.	Initiate defrosting.
	Condenser obstructed with dust.	Clean the condenser thoroughly.
	Direct sunlight or heat sources in immediate vicinity.	Move the appliance away from heat sources.
	Poor air circulation around the appliance.	Keep sufficient clearance from walls or other objects.
	Ambient temperature too high.	Provide for good air circulation in the installation location or install the appliance in a cooler room.

Possible Malfunctions


Error	Possible Cause	Solution
The appliance is on, but the temperature is too high/low.	Food products that are too warm are placed in the appliance.	Remove hot food products from the appliance.
	Too little clearance between objects inside the appliance or too many objects in the appliance.	Provide for sufficient clearance between objects inside the appliance; remove the excess of objects.
The appliance is losing water.	The appliance is not placed on even surface.	Place the appliance on an even surface, level it with the use of the height-adjustable feet.
	Obstructed drain.	Clean the drain opening.
	Obstructed inflow of water to the drain.	Clean the bottom of the appliance.
	Damaged water container.	Contact the service company.
	The water container is full.	Empty the water container.
The appliance operates loudly.	The appliance is not placed on even surface.	Place the appliance on an even surface, level it with the use of the height-adjustable feet.
	Loose nuts/screws.	Check and, if needed, tighten all screws and nuts.
	Appliance touches walls or other objects.	Keep sufficient clearance from walls or other objects.

The following phenomena are not malfunctions:

- Various sounds that are generated by the refrigerator during operation are a normal phenomenon and do not indicate any malfunctions.
- Splashing, bubbling and hums are generated by the coolant that circulates the system.
- Short, louder whirring/hooting or clicking sounds may be heard when the compressor of the appliance starts.

8 Disposal

Electrical Appliance

	<p>Electric appliances are marked with this symbol. Electrical appliances must be disposed of and recycled in a correct and environmentally friendly manner. You must not dispose of electric appliances with household waste. Disconnect the appliance from the power supply and remove power cord from the appliance.</p>
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Electrical appliances should be returned to designated collection points.

Coolant

The propellant used in the appliance is flammable. It should be utilised pursuant to national regulations in force.