



Stainless Steel Cabinet Refrigerators/Freezers



Models:

G590/G591/G592/G593/G594/G595/U629/U630

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Safety Tips

- Position on a flat, stable surface.
- A service agent/qualified technician should carry out installation and any repairs if required. Do not remove any components or service panels on this product.
- Consult Local and National Standards to comply with the following:
 - Health and Safety at Work Legislation
 - BS EN Codes of Practice
 - Fire Precautions
 - IEE Wiring Regulations
 - Building Regulations
- DO NOT use jet/pressure washers to clean the appliance.
- DO NOT use the appliance outside.
- DO NOT use this appliance to store medical supplies.
- DO NOT use electrical appliances inside the appliance (e.g. heaters, ice-cream makers etc.)
- DO NOT stand or support yourself on the base, drawers or doors.
- DO NOT allow oil or fat to come into contact with the plastic components or door seal. Clean immediately if contact occurs.
- Bottles that contain a high percentage of alcohol must be sealed and placed vertically in the refrigerator.
- Always carry, store and handle the appliance in a vertical position and move by holding the base of the appliance.
- Always switch off and disconnect the power supply to the unit before cleaning.
- Keep all packaging away from children. Dispose of the packaging in accordance with the regulations of local authorities.
- If the power cord is damaged, it must be replaced by a POLAR agent or a recommended qualified technician in order to avoid a hazard.

Product Description

G590 - 400 litre Single Door Stainless Steel Refrigerator

G591 - 400 litre Single Door Stainless Steel Freezer

G592 - 600 litre Single Door Stainless Steel Refrigerator

G593 - 600 litre Single Door Stainless Steel Freezer

G594 - 1200 litre Double Door Stainless Steel Refrigerator

G595 - 1200 litre Double Door Stainless Steel Freezer

U629 - 600 litre Single Glass Door Refrigerator

U630 - 1200 litre Double Glass Door Refrigerator

Introduction

Please take a few moments to carefully read through this manual. Correct maintenance and operation of this machine will provide the best possible performance from your POLAR product.

Pack Contents

The following is included:

- POLAR Refrigerator or Freezer
- Keys x 2
- Shelf guides x 8 (Single)/ x 16 (Double)
- Shelves x 4 (Single)/ x 8 (Double)
- Instruction manual
- Waste water tray
- Waste water tray supports x 2
- Screws x 6
- Washers x 6
- Spring washers x 6

POLAR prides itself on quality and service, ensuring that at the time of packaging the contents are supplied fully functional and free of damage.

Should you find any damage as a result of transit, please contact your POLAR dealer immediately.

Installation

Note: If the unit has been stored in a non-vertical position, stand it in an upright position for approximately 12 hours before operation.

1. Remove the appliance from the packaging. Make sure that all protective plastic film and coatings are thoroughly removed from all surfaces.
2. Maintain a distance of 20cm (7 inches) between the unit and walls or other objects for ventilation. Increase this distance if the obstacle is a heat source.

Note: Before using the appliance for the first time, clean the internal cabinet and shelves with soapy water.

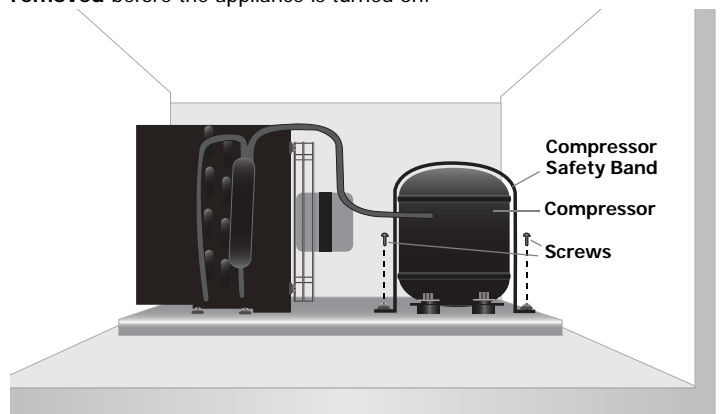
3. Level the appliance by adjusting the screw feet.

Removing the Compressor Safety Band (G592/G593/G594/G595/U629/U630 only)

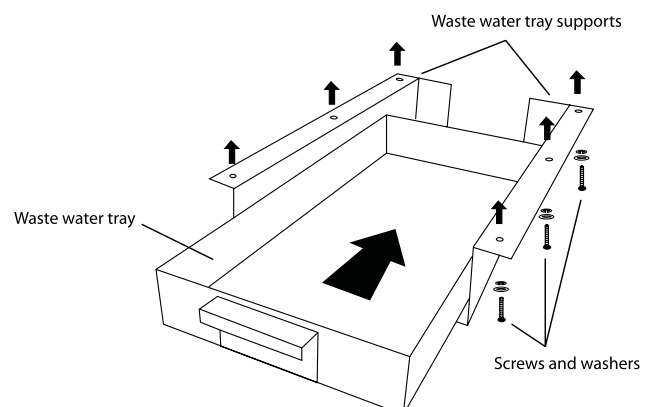
The compressor is located on the top of the appliance, and sits on rubber washers. Under normal operating conditions the compressor is allowed to vibrate.

To avoid damage through excessive motion during transit, a stainless steel safety band is placed over the compressor and screwed into the top of the appliance.

This safety band and the two screws fixing it to the appliance **must be removed** before the appliance is turned on.



Fitting the Waste Water Tray (G592/G593/G594/G595/U629/U630 only)



The waste water tray and supports comes ready to fit to the underside of the appliance.

1. Carefully tip the appliance to gain access to the underside.
2. Screw the supports into the holes on the underside of the appliance, using the screws and washers provided.
3. Lower the appliance and slide the tray onto the supports.

Fitting the Shelves

1. Place one set of shelf guides on either side of the cabinet at the desired height.
2. Slide the shelf into place.
3. Repeat for the remaining shelves.



Note: Always place one shelf in the lowest available position, or if that position is higher than 40mm, place the shelf directly onto the floor of the cabinet without the guides.

This is vital for ensuring correct drainage of condensation.

Operation

Storing Food

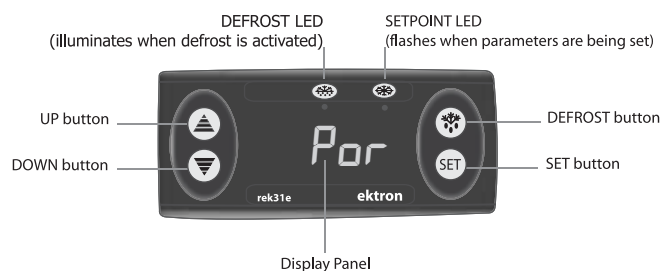
To get the best results from your POLAR appliance, follow these instructions:

- Only store foodstuffs in the appliance when it has reached the correct operating temperature.
- Do not place uncovered hot food or liquid inside the appliance.
- Wrap or cover food where possible.
- Do not obstruct the fans inside the appliance.
- Avoid opening the doors for prolonged periods of time.

Turn On



1. Close the door(s) of the appliance.
2. Ensure the power switch is set to [O] and turn on at the socket.
3. Switch on the Power [I]. The current temperature within the appliance is displayed.

Control Panel





Lock/Unlock the Control Panel

To lock the control panel:

1. Press and hold the UP  and DOWN  buttons simultaneously for 10 seconds.
2. PoF flashes on the display and the keyboard is locked.

To unlock the control panel:

1. Press and hold the UP  and DOWN  buttons simultaneously for 10 seconds.
2. Pon flashes on the display and the keyboard is unlocked.





Note:

If a button is not pressed for 10 seconds while using the control panel it times out and reverts to standby mode.

When parameters are being set the Setpoint LED will flash on the display.

Enter the Parameter Menu

1. Unlock the control panel, if locked.
2. Press and hold the SET  button until 'd1' flashes on the display.
3. Press the SET  button repeatedly to scroll to the desired parameter (see below).

Parameter	Name	Description	Range
d1	Operating temperature	Set the operating temperature of the appliance	-2°C to 10°C
d2	Temperature Differential	The Temperature Differential is the allowed temperature difference above and below the operating temperature before the compressor starts/cuts off	0 to 20°C
d3	Temperature Range	Set the minimum (d3) and maximum (d4) temperatures that the appliance can fluctuate between	-40°C
d4			95°C
d5	Compressor Activation Time Intervals	Enter the minimum time interval between the compressor turning off after turning on.	0-999 seconds
d6	Maximum Temperature Differential Alarm	Set an alarm to sound if the temperature inside the appliance exceeds the set operating temperature by a specified amount	0°C-50°C
d7	Temperature Differential Alarm Delay	Set a delay before the temperature differential alarm is triggered	0-99 minutes
d8	Defrost Cycle Time Intervals	Set the time between each defrost cycle	1-999 hours
d9	Maximum Defrost Duration	Set the maximum length of the defrost cycle Note: The defrost duration can be overridden by parameter d10 (below), if the cut-off temperature is reached before the end of the defrost duration	0-999 minutes
d10	Defrost Cut-off Temperature	(G591/G593/G595 only) Set the defrost cut-off temperature	-45°C to 50°C
d11	Additional Cut-off Defrost Period	(G591/G593/G595 only) Set an additional amount of defrost time after the defrost cut-off point has been reached (if required)	0-99 minutes
d12	Delayed Actual Temperature Display	Set the length of time the inner temperature of the appliance (before defrost started) is displayed for after a defrost cycle has finished	0-99 minutes
d13	Compressor On/Off During Defrost	(G591/G593/G595 only) Turn the Compressor On or Off during the defrost cycle	On (1) or Off (0)
d14	Evaporator Drying Time	Set the amount of time the compressor remains turned Off after a defrost cycle, reducing the amount of frost build up	0-99 minutes

Parameter	Name	Description	Range
=19	Temperature Offset	Should there be any variance between measured and actual temperature, the measured temperature can be offset to compensate	-20°C to 20°C
=22	Unit of Measurement	Set whether the temperature is displayed in Centigrade or Fahrenheit	Centigrade (0) or Fahrenheit (1)
=23	Compressor Operation During Probe Failure	Set whether the compressor runs or remains Off during a temperature probe failure	Compressor runs (1) Remains Off until fault fixed (0) Runs intermittently with parameters =24 and =25 (2)
=24	Compressor 'On' Duration	Set the length of time the compressor runs during a temperature probe failure	1-99 minutes
=25	Compressor 'Off' Duration	Set the length of time the compressor remains Off during a temperature probe failure	1-99 minutes
=34	Initial Defrost After Startup	(G591/G593/G595 only) Set whether the appliance starts a defrost cycle 10 minutes after startup or after the time programmed in parameter d8 (Defrost Cycle Time Intervals)	Begins 10 minutes after startup (0) or when programmed (1)
=38	Minimum Temperature Alarm	Set the display to flash should the inner temperature of the appliance drop beyond a specified point from the programmed operating temperature	1°C to 50°C

Manual Defrost

The appliance will automatically run a defrost cycle every six hours.

Note: The cycle starts from the time the appliance is initially powered up.

To manually defrost the appliance:

1. Press and hold the DEFROST button for 5 seconds.
2. The defrost cycle will start immediately and the Defrost LED illuminates. The defrost will last a maximum of 30 minutes.

Note: Starting a manual defrost also resets the automatic defrost timer.

The next automatic defrost will start six hours after the manual defrost has finished.

3. Waste water is collected in the waste water tray.

Lock/Unlock the Doors

A lock is fitted to the doors to ensure foodstuffs are kept secure within your POLAR appliance.

Use the keys provided to lock/unlock the doors.

Cleaning, Care & Maintenance

- Switch off and disconnect from the power supply before cleaning.
- Clean the interior of the appliance as often as possible.
- Do not use abrasive cleaning agents. These can leave harmful residues.
- Clean the door seal with water only.
- Always wipe dry after cleaning.
- Do not allow water used in cleaning to run through the drain hole into the evaporation pan.
- Take care when cleaning the rear of the appliance. Sharp edges can cut.
- A POLAR agent or qualified technician must carry out repairs if required.

Cleaning the Condenser

Periodically cleaning the condenser can extend the life of the appliance.

POLAR recommend that a POLAR agent or qualified technician clean the condenser.

Troubleshooting

If your POLAR appliance develops a fault, please check the following table before making a call to the Helpline.

Fault	Probable Cause	Action
The appliance is not working	The unit is not switched on	Check the unit is plugged in correctly and switched on
	Plug and lead are damaged	Call POLAR agent or qualified Technician
	Fuse in the plug has blown	Replace the fuse
	Power supply	Check power supply
	Internal wiring fault	Call POLAR agent or qualified Technician
The appliance turns on, but the temperature is too high/low	Too much ice on the condenser	Defrost the appliance
	Condenser blocked with dust	Call POLAR agent or qualified Technician
	Doors are not shut properly	Check doors are shut and seals are not damaged
	Appliance is located near a heat source or air flow to the condenser is being interrupted	Move the refrigerator to a more suitable location
	Ambient temperature is too high	Increase ventilation or move appliance to a cooler position
	Unsuitable foodstuffs are being stored in the appliance	Remove any excessive hot foodstuffs or blockages to the fan
	Appliance is overloaded	Reduce the amount of food stored in the appliance
The appliance is leaking water	The appliance is not properly levelled	Adjust the screw feet to level the appliance
	The discharge outlet is blocked	Clear the discharge outlet
	Movement of water to the drain is obstructed	Clear the floor of the appliance
	The water container is damaged	Call POLAR agent or qualified Technician
	The drip tray is overflowing	Empty the drip tray
The appliance is unusually loud	The frame has become loose	Check and tighten all nuts and screws
	The appliance has not been installed in a level or stable position	Check installation position and change if necessary

Error Messages

The following table details the cause and subsequent response of the appliance to errors.

Error Message (flashing)	Cause	Appliance Response	Action
HtA	The inner temperature exceeds the set maximum temperature	Display flashes Alternating error message and current temperature	Check Troubleshooting Guide If problem persists call POLAR agent or qualified Technician
LtA	The inner temperature exceeds the set minimum temperature	Display flashes Alternating error message and current temperature	Check Troubleshooting Guide If problem persists call POLAR agent or qualified Technician
PF1	Short circuit or interruption of the thermostat probe input line	Display flashes	Compressor operates as specified by parameter '=23'
PF2	Short circuit or interruption of the evaporator probe input line	Display flashes	Defrost as specified by parameters d8 and d9
HLA	Inner temperature greater than 90°C	Display flashes Alternating error message and current temperature	Call POLAR agent or qualified Technician
LLA	Inner temperature lower than -45°C	Display flashes Alternating error message and current temperature	Call POLAR agent or qualified Technician

The alarm message will end when the alarm trigger is no longer present, except PF1 and PF2 that require the appliance to be turned Off, then On again.

Technical Specifications

Model	Voltage	Power	Current	Temperature Range	Capacity (litres)	Refrigerant	Dimensions H x W x D (mm)	Weight (Kg)
G590	230V 50Hz	250W	1.1A	-2°C to 10°C	400	R134a 230 grams	1915 x 600 x 700	125
G591	230V 50Hz	250W	1.1A	-15°C to -22°C	400	R404a 300 grams	1915 x 600 x 700	125
G592	230V 50Hz	450W	2A	-2°C to 10°C	600	R134a 230 grams	1990 x 660 x 800	120
G593	230V 50Hz	750W	5.8A	-15°C to -22°C	600	R134a 410 grams	1990 x 660 x 800	120
G594	230V 50Hz	400W	3.5A	-2°C to 10°C	1200	R134a 400 grams	1990 x 1345 x 800	180
G595	230V 50Hz	750W	5.8A	-15°C to -22°C	1200	R404a 440 grams	1990 x 1345 x 800	180
U629	230V 50Hz	450W	2A	-2°C to 10°C	600	R134a 290 grams	1990 x 660 x 800	115
U630	230V 50Hz	650W	2.8A	-2°C to 10°C	1200	R134a 500 grams	1990 x 1345 x 800	180

Electrical Wiring

POLAR Refrigerators and Freezers are supplied with a 3 pin, moulded, BS1363 plug and lead, with a 13 amp fuse as standard.

The plug is to be connected to a suitable mains socket.

POLAR Refrigerators and Freezers are wired as follows:

- Live wire (coloured brown) to terminal marked L
- Neutral wire (coloured blue) to terminal marked N
- Earth wire (coloured green/yellow) to terminal marked E

All POLAR Refrigerators and Freezers must be earthed, using a dedicated earthing circuit.

If in doubt consult a qualified electrician.

Electrical isolation points must be kept clear of any obstructions. In the event of any emergency disconnection being required they must be readily accessible.

Compliance

BUFFALO parts have undergone strict product testing in order to comply with regulatory standards and specifications set by international, independent, and federal authorities.

BUFFALO products have been approved to carry the following symbol:





POLAR Telephone Helpline: (+44) 0845 146 2887

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