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A large version of the Holland Green Science logo, featuring the text "Holland Green Science" in blue and a stylized orange leaf with three main lobes and a vertical stem to its right.

10308006  
Boreas Plus  
Freezer

# User Manual

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For claims under the warranty please contact your local supplier. You may also send the instrument directly to manufacturer, enclosing the invoice copy and by giving reasons for the claim.

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## II. Safety



### **IMPORTANT Safety Items to be Observed.**

#### **Safety Warnings**

**! DANGER (may cause serious damage to property and or casualties)**

1. Please carefully read this User Manual prior to operating the instrument and observe the instructions on safe operation.
2. The power source must be grounded reliably and away from any sources of electromagnetic interference.
3. Confirm that the voltage and frequency of the power supply matches the specified voltage and frequency specified prior to use.
4. The instrument should be operated on an independent power outlet.
5. Do not allow the instrument to be plugged in or unplugged whilst the power switch is in the on position.
6. Do not modify the power cord.
7. The working environment must be free of any flammable, explosive, volatile or corrosive substances.
8. The instrument is deenergised only when the power cable is disconnected from the power source.
9. This instrument is for indoor use only.
10. The instrument should be operated in a low humidity, well ventilated, dust, and water free environment, without direct sunshine or an intense magnetic, light or heat source. Ensure that the instrument and its accessories are free of any potential defects.
11. Ensure that the instrument is secured tightly, and only standard accessories supplied by the manufacturers are used with this instrument.

**! WARNING (may cause property damage or personal injury)**

12. Prevent water from splashing on the electrical elements of this instrument.
13. Before assembly, disassembly, cleaning or maintenance, the power source must be disconnected.

**! ATTENTION (may affect operational performance or service life)**

14. When pulling the power plug out from a power source, do not pull out using the power cord directly.
15. Only accredited and qualified professional repair technicians can open the instrument or conduct required repairs. Persons performing repairs on the instrument other than those selected or approved by the Company shall operate to void any warranty contained hereinabove for the product
16. Do NOT operate this instrument immediately after transport, due to the Compressor await 1-2 days before operating. The instrument must be used in accordance with this User Manual.

### III. Proper Use

The instrument is designed for non-residential use and to be used in conjunction only with accessories recommended within this manual and by the manufacturer.

**Please don't put any trays on the bottom layer of the freezer to avoid scratches.**

### IV. After Sales Support

If problems are encountered or technical support is required when installing or using the instrument, please contact [serviceusa@hollandgreenscience.com](mailto:serviceusa@hollandgreenscience.com)

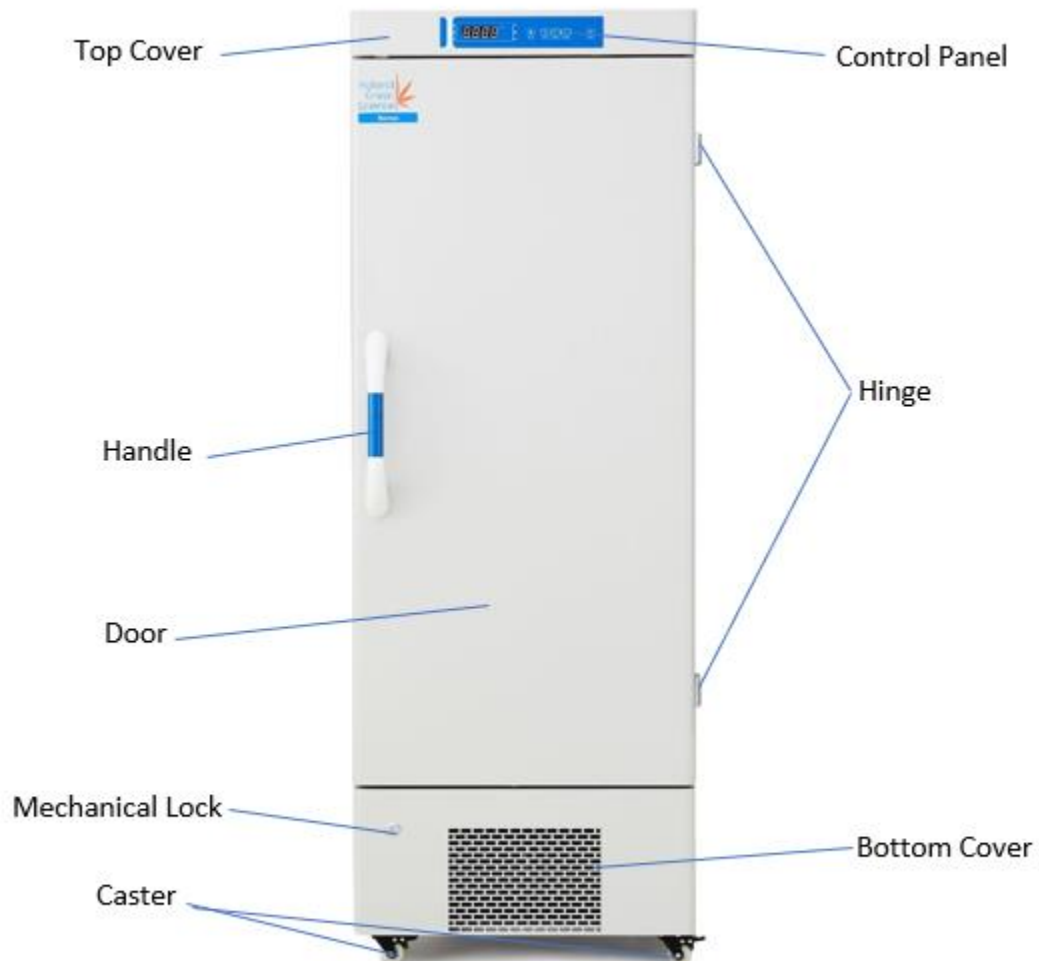
The Company may provide technical assistance and information regarding the instrument or equipment or service without charge at its sole discretion. Buyer assumes sole responsibility for any reliance on or use of such assistance and information, and the Company makes no warranty thereon.

Upon contact the following information is required:

- Product serial number (located on the instrument nameplate)
- Description of issue or problem
- Method and or operating steps you have undertaken towards resolution.
- Your contact details inclusive of telephone number and email address.



## V. Boreas Series Freezer Introduction



## VI. Technical Specifications

<b>Model</b>	10308006	
<b>Product Name</b>	Boreas Plus	
<b>Power Specification</b>	120V 60Hz 1ph – 280W	
<b>Climate Type</b>	SN/N	
<b>Cabinet Temperature</b>	-10 °C~-25 °C	
<b>Effective Volume</b>	320L	
<b>Rated Voltage</b>	220V	
<b>Frequency</b>	50Hz	
<b>Refrigerant</b>	R290	
<b>Ambient Temperature</b>	5 °C ~ 28 °C	
<b>Ideal Temperature</b>	18 °C ~ 25 °C	
<b>Ambient Humidity</b>	<80% RH	
<b>Temperature Resolution</b>	0.1 °C	
<b>Cooling Time</b>	≤ 2.6 °C	
<b>Altitude</b>	<2000m	
<b>Power Failure Alarm</b>	YES	
<b>High/Low Temperature Alarm</b>	YES	
<b>Door Open Alarm</b>	YES	
<b>Shelves</b>	21	
<b>Door Opening W x H</b>	508 x 1393 mm	
<b>Interior Dimensions W x D x H</b>	508 x 455 x 1393 mm	
<b>Outline Dimension</b>	<b>W</b>	673mm
	<b>D</b>	676mm
	<b>H</b>	1886mm

## VII. Standards and Conformity

**Construction in Accordance with the following Safety Standards:**

**UL 61010-1:2012**

**CSA C22.2#61010-1-12:2012**

**UL 61010-2-011:2021**

**CSA C22.2#61010-2- 011:2019**

**Construction in Accordance with the following EMC Standards:**

**EN 61010-1:2010**

**EN 61326-1:2013**

## VIII. Inspection

Unpack the equipment carefully and check for any damage which may have arisen during transport. In the event of identified damage, please contact

[serviceusa@hollandgreenscience.com](mailto:serviceusa@hollandgreenscience.com)

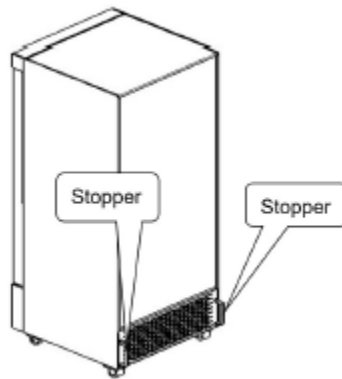
The package includes the following items

Item	Description	Unit	
1	IOM	PCS	1
2	Key	PCS	2
3	Stopper	PCS	2
4	Ice Shovel	PCS	1
5	Shelf	PCS	3
6	Clip	PCS	12

## IX. Installation Instructions

### 9.1 Initial Setup

- Leave a 30cm ventilation gap around all four sides of the cabinet.
- Install the instrument only on a stable and level floor surface
- When the freezer is located into the desired position, set the front castor brakes.
- The freezer must NOT be moved with the product loaded inside.  
Allow adequate space in the front of the freezer for door opening.  
Remove all packing materials and the packing bag.
- Install the stoppers at the rear side of the machine set as per figure below.
- Do not install the instrument within small, closed or confined spaces.



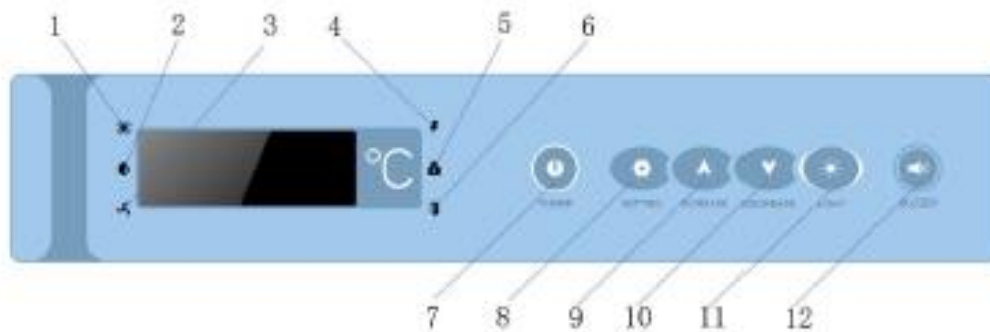
**Note:** If tipped more than 45°, allow the Freezer to sit upright for 24 hours prior to Start.

### 9.2 Powering On

- Inspect all external components to confirm they are not damaged.
- Check the rated voltage on the nameplate
- With an empty cabinet, connect the power plug to a dedicated power socket.
- After power 'ON', if an alarm sounds, press the 'Buzzer Button' to mute the alarm. The alarm light continues to display until the temperature reaches the required setting data.
- After checking the freezer is operating as required, gradually place items into the cabinet.

## X. Operating Instructions

### 10.1 User Interface



1. **Cooling Status Indicator**
2. **Defrost Indicator**
3. **Fan Status Indicator**
4. **Power Indicator**
5. **Keyboard Lock Indicator**
6. **Door open Indicator**
7. **Power Switch**
8. **Setting Key**
9. **Increase Key**
10. **Decrease Key**
11. **Lamp Switch**
12. **Mute Alarm**

- Long press 'Power Switch' to switch 'OFF'
- Long press 'Power Key' to switch 'ON'
- Long press the Keypad 'Lock Key' (combination of keys 8 and 9 together) to lock and unlock the keypad. The keyboard lock LED will Light confirming that all keys are now locked.  
Press 'Mute' to disable the audible alarm, the alarm indicator and code continues to display.

## 10.2 Parameter Settings

Upon power on, the screen displays the current internal temperature value.  
To change the set temperature

<b>Function</b>	<b>Keys Operation</b>	<b>Display</b>
1	Default	Displays the inside temperature
2	Press the key 8 for 3 seconds	Displays the initial set data and flashes
3	Press the key 9	Figure increases
4	Press the key 10	Figure decreases
6	Press the key 8 for 3 seconds	Saves the user settings and displays the inside temperature

## 10.3 Temperature Query Settings

Press key 9 to check high and low temperature record.

NO.		Display
1	Default	Displays inside temperature
2	Press key 9	Display highest temperature (HT)
3	Press key 9 again	Display HT date HD
4	Press key 9 again	Display HT hour HH
5	Press key 9 again	Display HT minute
6	Press key 9 again	Display lowest temperature (LT)
7	Press key 9 again	Display LT date
8	Press key 9 again	Display LT hour
9	Press key 9 again	Display LT minute
10	Press key 9 again	Go back to '3'
11	Long Press Key 9	Delete record

## 10.4 Review and Set Time

<b>NO.</b>	<b>Key operation</b>	<b>Display</b>
1	Default	Display cabinet temperature
2	Press key 10	Display Time, Year Y_17
3	Press key 10 again	Month N_03
4	Press key 10 again	Date D_15
5	Press key 10 again	Hour H_08
6	Press key 10 again	Minute E_20
7	Press key 10 again	Second S_21
8	Long press key 10	Set Time, Year
9	Press key 9 or 10	Set Year or Displayed Parameter
10	Press key 8	Cycle through 3,4,5,6,7
11	Long Press Key 8	Store



## 10.5 Alarm Codes.

<b>NO.</b>	<b>Alarm code</b>	<b>Describe</b>
1	<b>AH</b>	High temperature alarm
2	<b>AL</b>	Low temperature alarm
3	<b>AUF</b>	Power failure alarm

During a power failure or fault a battery will activate allowing the display to continue, the power failure alarm displays 'AUF' and the current inside temperature will cycle on the display.

After 8 hours, the display blanks.

The power failure alarm light will illuminate continuously until the battery is fully recharged.

## 10.6 Error Display

<b>NO.</b>	<b>Alarm code</b>	<b>Describe</b>
1	<b>AD1S</b>	Temperature controller fault
2	<b>AS1S</b>	Temperature sensor fault

If the temperature sensor alarm occurs, switch 'OFF' the power and check the connecting wire of the sensor.

## XI. Maintenance

Keep the instrument dry and clean in routine operations.

Clean the outer surface with a non-abrasive cleanser and only connect the power supply when the entire instrument surface is dry.

If liquid or moist solids enters the instrument, please immediately disconnect the power supply and contact [serviceusa@hollandgreenscience.com](mailto:serviceusa@hollandgreenscience.com)

- Surface stains on the instrument should be cleaned only by a clean, soft rag and detergent.
- The power must be disconnected before any maintenance or cleaning.
- Do not clean the instrument with any corrosive cleaning solutions.
- If the instrument is left unused for a long period, switch 'OFF' the power and store within a dry, clean, level, and stable surface at normal temperature.



### **Caution!**

Before any Maintenance or Inspection, the Power Cable **MUST** be removed from the power socket.

### 11.1 Defrost

Frost may occur on the rack within the cabinet and may possibly cause a gap between the cabinet body and the door seal and reduce performance. Please remove frost only after disconnecting the power supply.

NEVER remove frost with any sharp edge object such as a knife or screwdriver.

1. Take out all items from the cabinet and store them within an alternate cabinet or container with frozen liquid carbon dioxide.
2. Disconnect the power supply.
3. Open the small doors, and keep the external door open to defrost for a moment.
4. Remove the water from the bottom of the cabinet with dry fabric cloth.
5. Start the instrument after cleaning the cabinet body.
6. Ensure the temperature is correct prior to return to the original items to the defrosted and cleaned cabinet.

## XII. Trouble Shooting

### 12.1 Poor Cooling Performance

- Check ambient temperature is within limits.
  - Check if the external door is closed. (Check for frost on seal)
  - Check if the temperature is set correctly.
  - Check if the storage cabinet is near a heat source.
- 
- When stopped temporarily due to power failure or other faults, the inside temperature of the refrigerator will rise from  $-40^{\circ}\text{C}$  to  $-30^{\circ}\text{C}$  within 1 hour.  
If power cannot be restored, relocate all stored goods to avoid damage or loss.
  - Prior to storing goods confirm in that the inside temperature is in accordance with the set temperature for item storage to avoid losses caused by goods damage due to the improper temperature.
  - Due to the refrigeration inertia, the instrument cannot be kept at an exact constant temperature and differences between the actual temperature and the set temperature will occur.