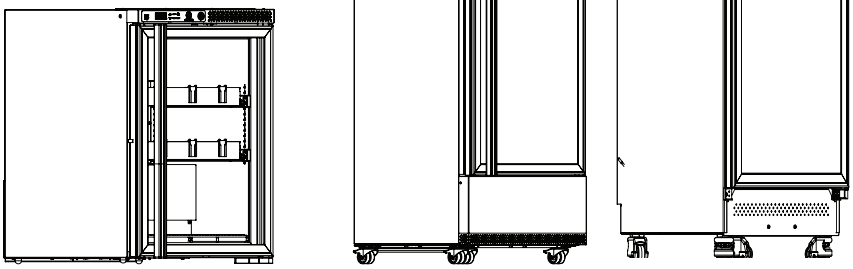
VESTFROST SOLUTIONS

USER MANUAL - EN

MODELS - BBR150 - BBR290
MODELS - AKG/S 157 - AKG/S 427 - AKG/S 337 - AKG/S 397



BIOMEDICAL SOLUTIONS

REFRIGERATORS

CONTENTS

WARNING

As the appliance contains a flammable refrigerant, it is essential to ensure that the refrigerant pipes are not damaged.

The quantity and type of the refrigerant used in your appliance is indicated on the rating plate.

Standard EN378 specifies that the room in which you install your appliance must have a volume of 1m³ per 8 g of hydrocarbon refrigerant used in the appliances. This is to avoid the formation of flammable gas/air mixtures in the room where the appliance is located in the event of a leak in the refrigerant circuit.

WARNING:
Keep ventilation openings in the appliance's cabinet or in the built-in structure clear of obstruction.

WARNING:
Do not use other mechanical devices or other means to accelerate the defrosting process than those recommended by the manufacturer.

WARNING:
Do not damage the refrigerant system.

WARNING:
Do not use electrical appliances inside the refrigerated storage compartment, unless they are of a type recommended by the manufacturer.

WARNING:
Do not expose the appliance to rain, and secure not splashing water when cleaning the floor.

WARNING:
This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been

given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

WARNING:
Children shall not play with the appliance.

WARNING:
Cleaning and user maintenance shall not be made by children without supervision.

WARNING:
Do not store explosives, such as aerosol cans with flammable propellants in the unit.

WARNING:
Danger risk of fire or explosion if flammable refrigerant are used. To be repaired only by trained personnel.

WARNING:
When positioning the appliance, ensure the power cord is not trapped or damaged.

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

WARNING:
Sharp edges on cabinet, compressor compartment, evaporator, ventilation cover and on internal equipment can occur. Please be aware to avoid injury.

WARNING:
The condenser on the back of the appliance will in some cases have a hot surface. Please be aware to avoid injury.

WARNING:
The appliance must be connected to power minimum 12 hours before using it for storage of medicine.

- Always keep the keys in a separate place and out of reach of children.
- Do not step on the lower panel to reach medicine in the top of the appliance.
- Before servicing or cleaning the appliance, unplug the appliance from the mains or disconnect the electrical power supply.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or similarly qualified persons in order to avoid a hazard.
- Relevant for Australia: Supply cord fitted with a plug complies with AS/NZS 3112.
- Frost formation on the interior evaporator wall and upper parts is a natural phenomenon. Therefore, the appliance should be defrosted during normal cleaning or maintenance.
- Please note that changes to the appliance construction will cancel all warranty and product liability.
- This device is intended to be used exclusively for medical products.
- If medicine is spilled in the appliance or the defrost water canal is has to be cleaned immediately to avoid the medicine to evaporate to the surroundings.
- If the instructions is lost please contact your supplier of the appliance to have a new instruction for use.
- If service needed to this device, please be aware of only using service personnel with education in handling medical devices.

PRODUCT DESCRIPTION

Before use

This user manual is intended for the following product models:

Undercounter	Upright
BBR 150 AKG/S 157	BBR 290 AKG/S 427 AKG/S 337 AKG/S 397

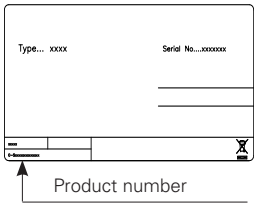
We recommend that you read this user manual before using the unit for the first time. Vestfrost Solutions does not guarantee safe operation if the unit is used for anything other than its intended use. Contents of the user manual can be subject to change without notice.
This manual should be considered an integral part of the unit and should be stored close to the unit and be easy to access.
For current versions of the manual, please visit https://www.vestfrostsolutions.com/biomedical/.

Before operating your new appliance, please read the following instructions carefully:

1. Check to ensure the appliance has not been damaged during transport. Transport damage should be reported to the transporter at delivery.
2. The foil on the shelves must be removed before cleaning and using the unit.
3. Clean the inside of the cabinet using warm water with a mild detergent. Use a soft cloth and rinse with clean water and dry thoroughly.
4. Allow the freezer to stay at an upright position for at least one hour before switched on.
5. Allow the freezer to operate at the desired temperature for a minimum of 12 hours before loading.

Electrical connection

Wiring and connections in power supply systems must been all applicable (local and national) electrical codes. Consult these codes lengths and sizes prior to cabinet installation.
This device complies with relevant EU directives including Low Voltage Directive 2014/35/EU and Electromagnetic Compatibility Directive 2014/30/EU
The socket should be freely accessible.
Connect the appliance only to 220/240V / 50Hz alternating current via a correctly installed earthed socket.
The socket must be fused with a 10A or 13A fuse.
If the appliance is to be operated in a non-European country, check on the rating plate whether the indicated voltage and current type correspond to the values of your mains supply.
Data regarding voltage and obsorbed power / current are given on the rating plate.
The power cord may be replaced by a technician only.
The rating plate provides various technical information as well as type and serial number.



Intended use

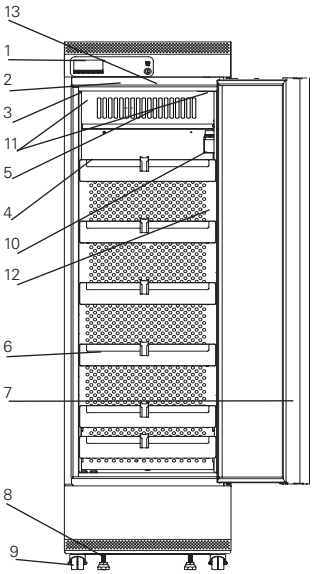
Vestfrost biomedical refrigerators are precision temperature controlled storage units offering high reliability and performance. The units provide effective cold temperature storage for sensitive and valuable items. The products are designed for the following operating ranges:

Models	**BBR 150** **BBR 290**	**AKG/S 157**	**AKG/S 337** **AKG/S 397** **AKG/S 427**
Temperature range	+2°C to +6°C	+2°C to +8°C	+2°C to +8°C
Fabric Set Point	+3°C	+3°C	+5°C
Ambient Temperature	+16°C to +32°C	+16°C to +32°C	+16°C to +32°C
Relative humidity	MAX 65 %	MAX 65 %	MAX 65 %
Number of probes	5	4	4

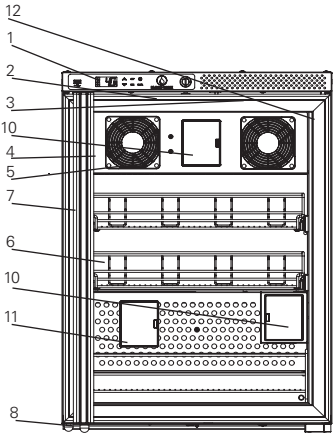
WARNING: This unit is not a "Rapid-Cooler" device. Cooling large quantities of liquid, or high-water content items, will temporarily increase the chamber temperature and will cause the compressors to operate for a prolonged time period. Avoid opening the door for extended time periods since chamber temperature air will escape rapidly.

REFRIGERATOR COMPONENTS

Front & internal view

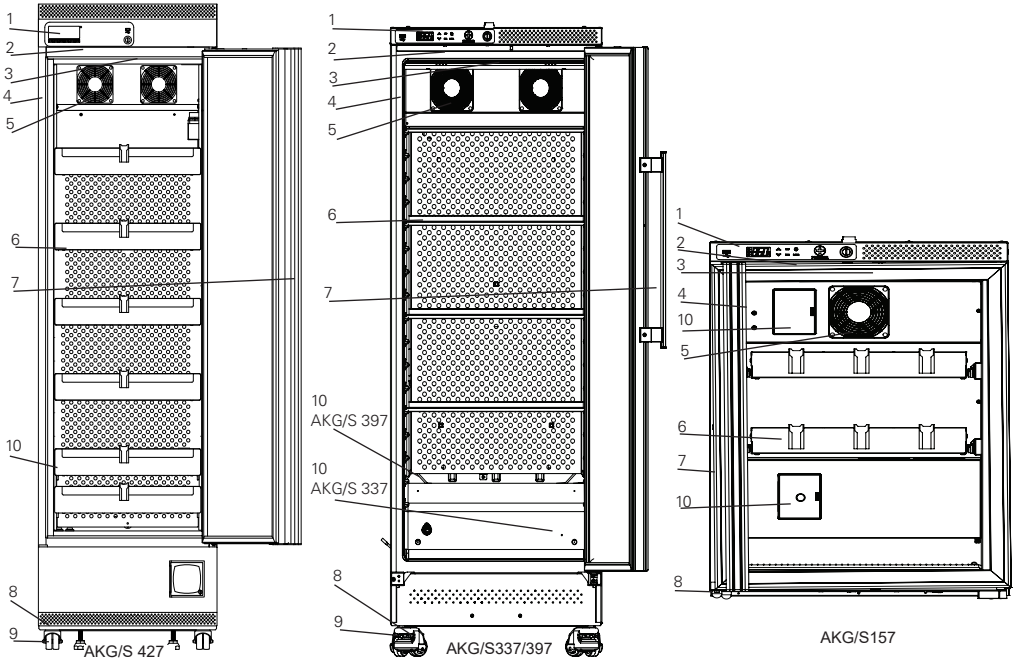


BBR290



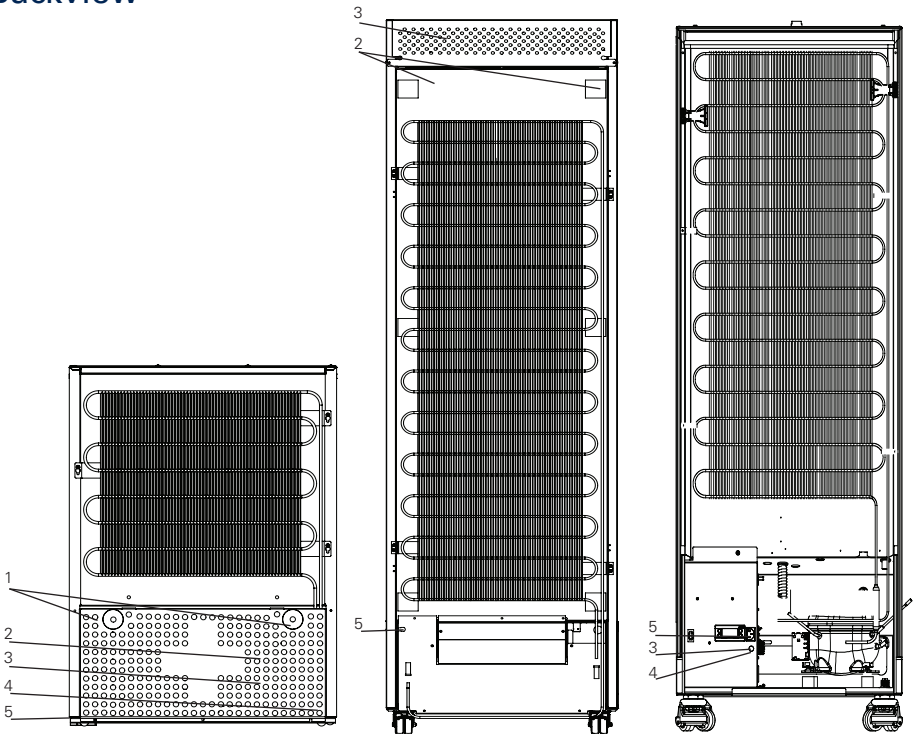
BBR150

1. Display – With integrated keyboard
2. Light – Only when door is opened
3. Door switch
4. Stacking mark
5. Fan
6. Drawer
7. Door handle
8. Adjustable feet (only on some models)
9. Wheels with breaks
10. Probe bottle
11. Porthole
12. Rating label
13. Battery backup button. It will take 10 days for the battery to be fully charged. See chapter Installation and Start-up



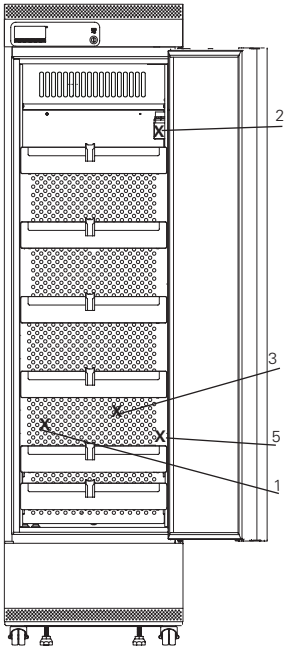
1. Display – With integrated keyboard
2. Light – Only when door is opened
3. Door switch
4. Stacking mark
5. Fan
6. Drawer/Shelf
7. Door handle
8. Adjustable feet (Only available with DIN 58345 kit)
9. Wheels with breaks (Only on some models)
10. Probe bottle (Only available with DIN 58345 kit)

Backview

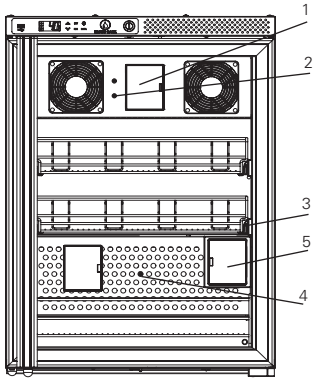


1. Ventilation guards.
   See chapter Installation and Start-up.
2. Porthole – Hole for external sensor.
   See chapter Installation and Start-up
3. Voltage free contact.
   See chapter Remote alarm function for more information.
4. Battery backup button. It will take 10 days for the battery to be fully charged.
   See chapter Installation and Start-up
5. Power supply – IEC plug or hardwired.

Sensor placement

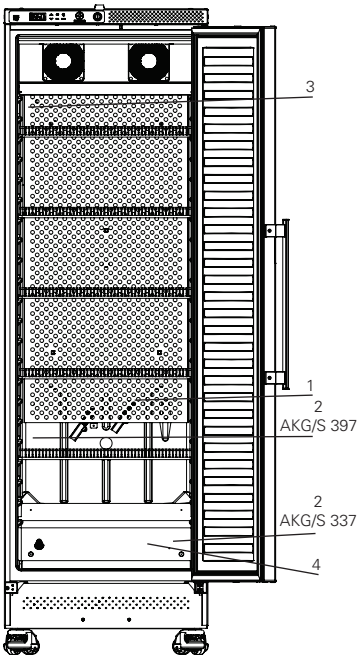


BBR 290

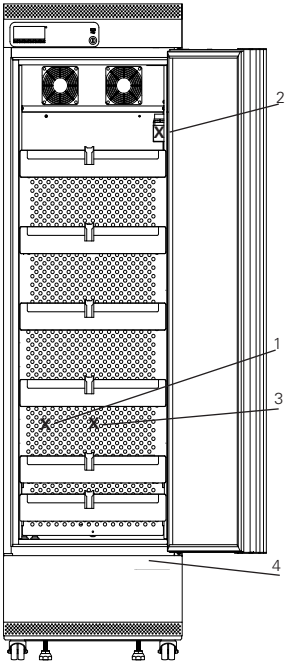


BBR 150

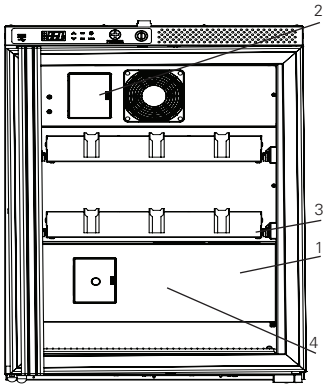
1. EVP Defrost sensor
2. TL1 Logging sensor
3. TR3 Temperatur sensor
4. S1 Safety thermostat sensor
5. TL2 Logging sensor



AKG/S337/397



AKG/S 427

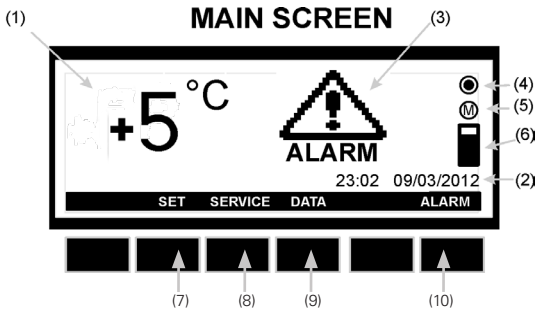


AKG/S 157

1. EVP Defrost sensor
2. TL1 Logging sensor
3. TR3 Temperatur sensor
4. S1 Safety thermostat sensor (DIN 58345 kit)

Display components

BBR290, AKG-S427



Operation – main view:

1. The temperature in the appliance (measured by the TR3 probe)
2. Time and date
3. ALARM icon. Flashing by alarm turned on when there has been an alarm, but the alarm is no longer active.
4. Logging icon. Turned Off if no logging. Turned On when logging.
5. Memory icon. Turned On when the memory is 90% full. Flashing when the memory is full, and the controller is deleting the oldest logging data.
6. Memory bar. Shows the status of the memory.

Keys – main view:

7. Enter the Set Point menu of the temperature.
8. Enter the Service menu.
9. Enter the Data Logging menu.
10. Enter the Alarm menu.

BBR150, AKG-S157/337/397

Leds

Each LED function is described in the following table.

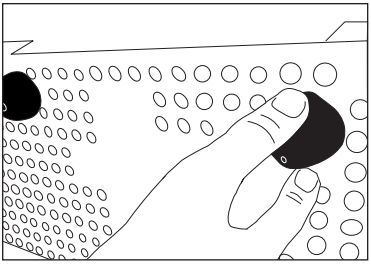
LED	MODE	Function
❄	ON	Compressor enabled
❄	Flashing	Anti-short cycle delay enabled
❄	ON	Defrost enabled
❄	Flashing	Drip time in progress
	ON	Fan enabled
	Flashing	Fan delay after defrost in progress
	ON	An alarm is occurring
	ON	Recording activated
	ON	Battery status OK
	Flashing	Battery is beeing charged
	Flashing	Charging problem or battery failure
°C/°F	ON	Measurement unit
°C/°F	Flashing	Programming phase

Buttons

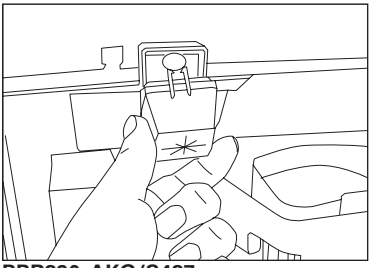
SET	To display target set point in programming mode it selects a parameter og confirm an operation.
	(UP) To enter fast access menu In programming mode it browses the parameter codes or increases the displayed value.
	(DOWN) In programming mode it browses the parameter codes or decreases the displayed value.
DATA	Export data from button.
	To switch off the light in the door (only models with light in the door)
REC	Log activation and deactivation from button (Password protected).

INSTALLATION AND START-UP

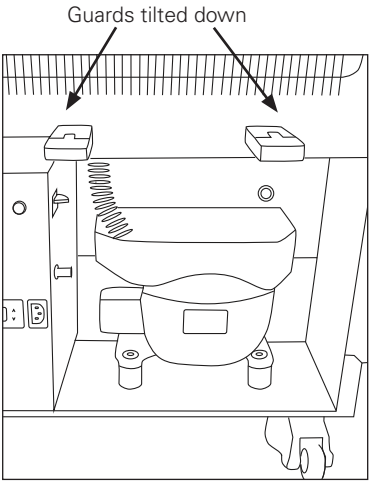
Ventilation guards



BBR150, AKG/S157



BBR290, AKG/S427



AKG/S337/397

The two ventilation guards are mounted before moving the appliance to it's final placement.
The guards function is to secure an absolute minimum of ventilation, if the appliance is pushed too close up against a wall.

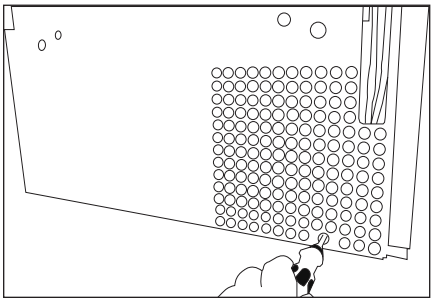
Steps:

1. Mount the ventilation guards in the holes behind the device.

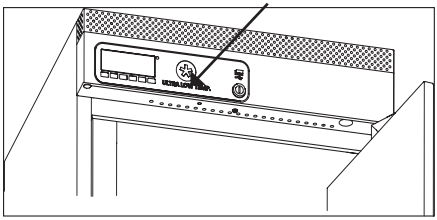
Note!

(Some models have pre mounted ventilations guards)

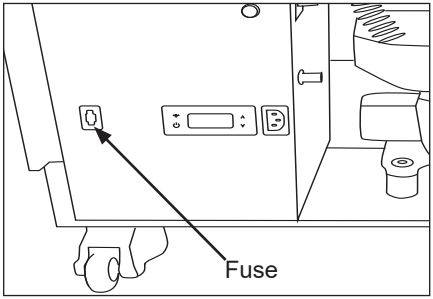
Battery backup



BBR 150, AKG/S157



BBR 290, AKG/S427



AKG/S 337/397

The appliance is equipped with a battery back up system, which supplies the controller with power at power failure. The back up system duration is 48 hours.

Steps:

1. Push the orange button to switch on the battery backup system.
   - For AKG/S 337/397 fuse must be used to switch on the backup battery system.

2. Check if the display for the battery status-LED is ON − +

Note!

When starting up the appliance for the first time it is necessary to charge the battery for 10 days.

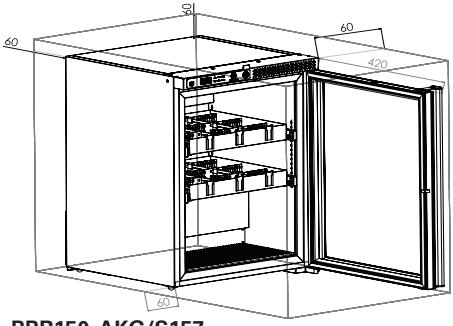
Note!

The battery backup system does not supply the cooling system with power. When starting up the appliance for the first time it is necessary to switch on the battery backup system.

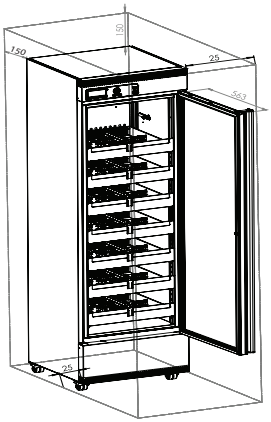
Note!

The battery for backup should be changed every third year to secure 48 hours of back up. Please put this change in the maintenance schedule for every third year.

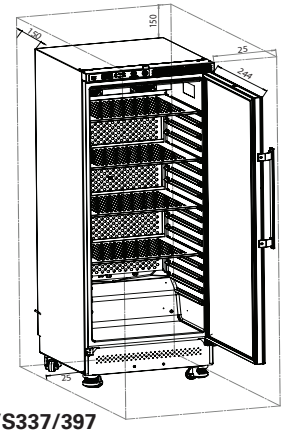
Location and ventiltation



BBR150, AKG/S157



BBR290, AKG/S427



AKG/S337/397

This unit must be installed according to the below condition:
If the unit is installed in a location against the below conditions, it's specified performance may not be achieved or malfunction and accidence may occur.

Steps:

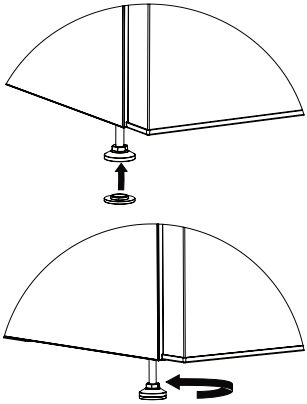
1. A location not exposed to direct sunlight
2. A location where the unit is not exposed to rain
3. In a dry, well ventilated room according to the described in Intended use
4. Away from sources of heat
5. In a location with minimal variations in temperature

Secure ventilation, above, below and around the appliance. See illustrations.
(All dimensions are in millimeter (mm).

Note!

There need to be space for the door to open in at least 90 degrees.

Levelling the appliance

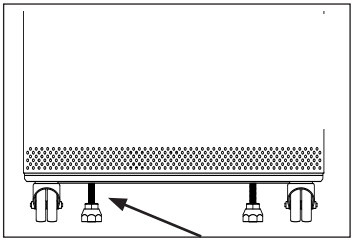


Make sure the appliance is level. It can be levelled by rotating the adjustable feet of the appliance.

Steps:

1. For some models: Take the ''antislip base'' from the plastic bag and mount it on the foot.

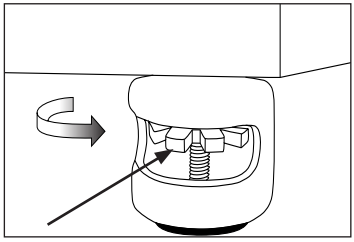
2. Adjust the four feet' until the unit is level.



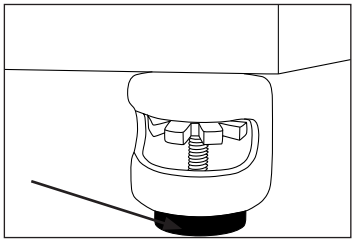
Depending on the model, the device is either installer with 4 wheels that can be levelled, or with two feet installed in front of the cabinet.

Adjustable wheels

Only available with DIN 58345 kit



Install unit and rotate nut clockwise to move foot to floor.



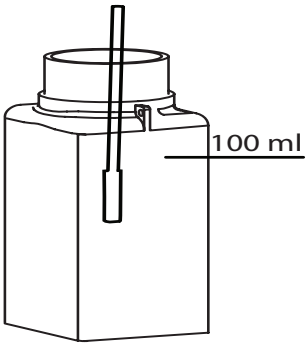
NOTE!

Be certain to lock the breaks for units equipped with casters.

AKG/S337/397

Probe bottle

Only available with DIN 58345 kit and BBR 150/290



To locate the probe bottle, see chapter Refrigerator component.

It is important to prepare the probe bottle before use.

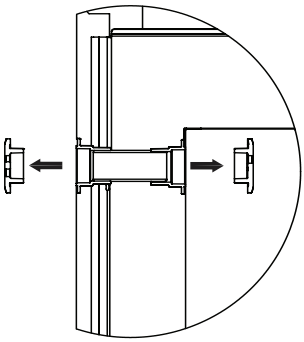
Steps:

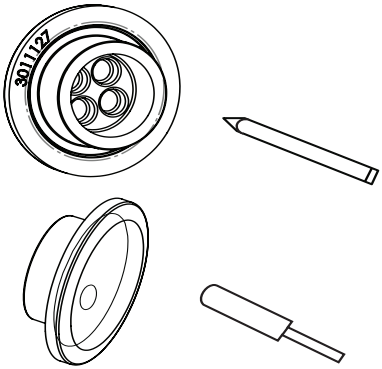
1. The probe bottle is placed like shown in top and bottom.
2. Remove the probe bottle and fill it with 100ml with a mixture of water and alcohol (min. 70%) in ration 1:1 (if you are use to use other products for probe bottle you may use this).
3. Place the probe bottle back in the refrigerator and put the sensor in the water, and make sure that all of the metal on the sensor is covered.

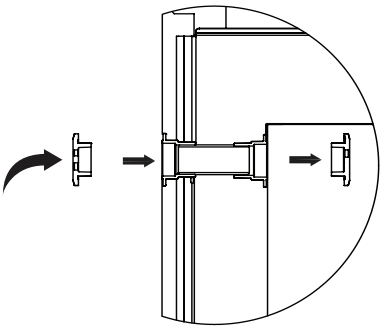
Note!

The mixture in the probe bottle shall be checked and refilled on a regular basis.

Porthole







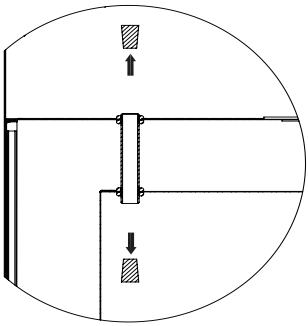
Portholes are used to pass the temperature probe in the chamber.

Steps:

1. See chapter ´´Refrigerator components´´ for placement of porthole on your device.
2. The rubber plug varies from the models. Please see the illustrations to the left to find your type of porthole.

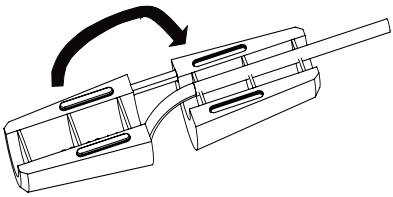
Porthole type 1:

1. Take out the two rubber plugs.
2. Press a pencil through the marks on the inside of the rubber plugs.
3. Put your external sensor through the porthole, in the same direction as the arrow seen on the illustrations to the left or as described below.
4. Put the sensor through the outer rubber plug.
5. Then through the foam cylinder inside the porthole.
6. Then through the inner rubber plug.
7. Use the cable tie to mount your sensor.

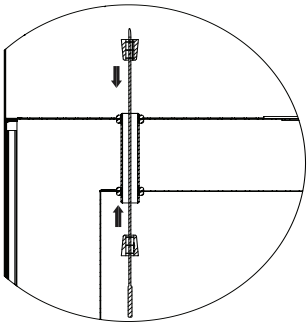


Porthole type 2:

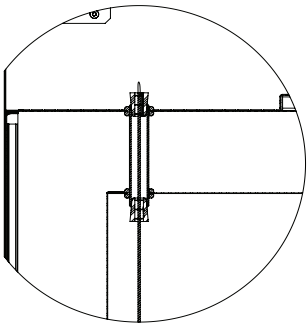
1. Take out the two rubber plugs.



2. Place your sensor wire in the plug.



3. Press the two plugs tight into the porthole Use the cable tie from the helping plastic bag to mount your sensor.

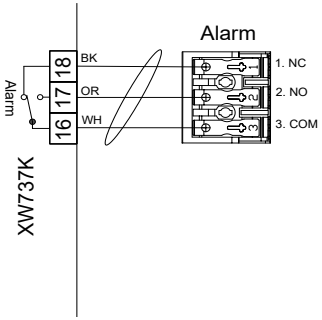


NOTE:

Use the cable tie to mount your sensor.

Please note that some units may not have a specific placement to your external sensor.

Remote alarm function



Internal XW737K controller with build-in alarm relay

Your device is equipped with a remote alarm connection to send alarm signals to a building management system, a monitoring unit, visual or acoustical warning device etc.

The alarm output is managed freely by the built in controller of the unit.

Alarm criteria may be too low temperature, too high temperature, power failure, open door or similar.

The alarm output is an electrical floating output (dry contact) which acts like a ON/OFF switch.

A SPDT (single pole, dual throw) relay with maximum switch rating of 250V 3A is maintained by the build-in XW737K controller unit.

The relay terminals are explained this way:

COM: COMMON terminal

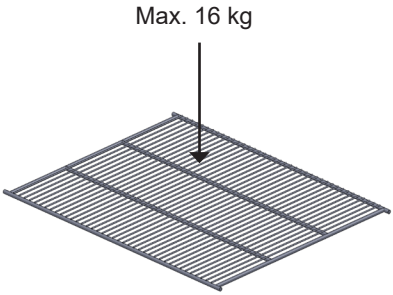
NO: NORMALLY OPEN terminal.
Connects to COM when the alarm is activated

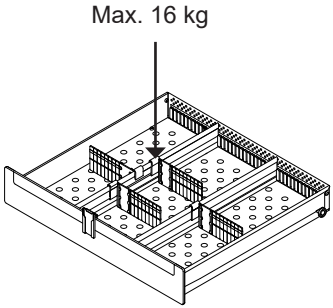
NC: NORMALLY CLOSED terminal.
Disconnects from COM when the alarm is activated

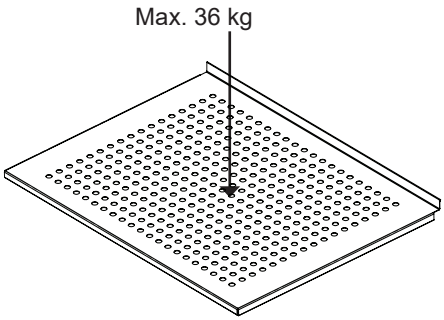
An alarm interface cable of maximum 30 meters can be attached without the use of tools to the 3-pole alarm clamp connector.

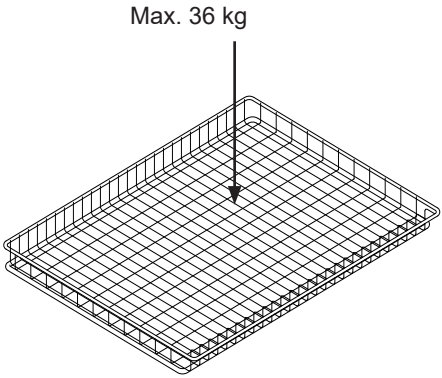
Wire thickness must be within 0.5mm² to 2.5mm² and fitted with core crimp terminals.

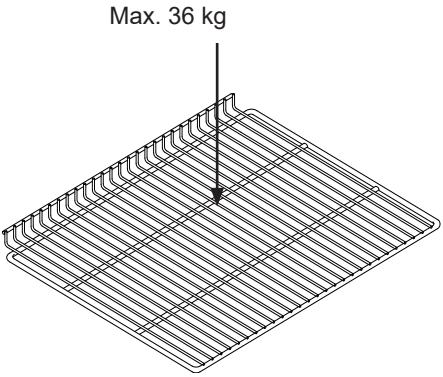
INTERIOR FITTING

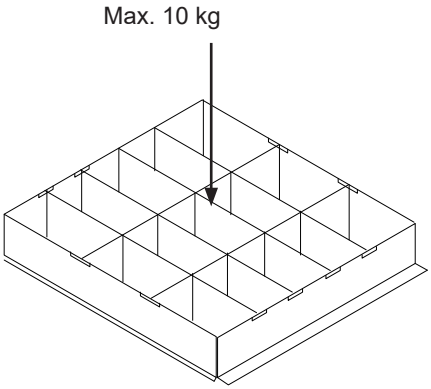






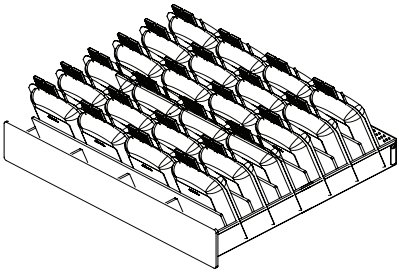

Max. 36 kg


Max. 36 kg


Max. 10 kg

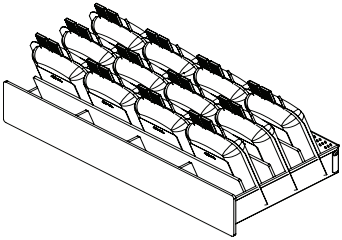
HOW TO PLACE BLOOD BAGS

Only BBR150/290



Top and middle drawer capacity 24 blood bags

The bottom drawer holds 16 bags placed 4 x 4. In the top and middle drawer the bags are placed 6 x4 (max. 450ml) per drawer.



Bottom drawer capacity 16 blood bags

CONTROLLER- OPERATION AND FUNCTION

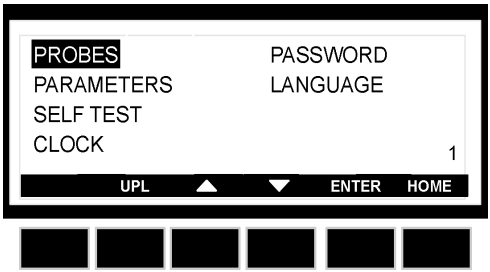
Models BBR290, AKG/S427

Start up:

When the appliance is connected to the power supply, the keyboard will automatically start up.
The start up view on the keyboard will show the different software installed on the controller of the appliance.
Press enter to return from the start up view.

How to see and modify the temperature Set Point:

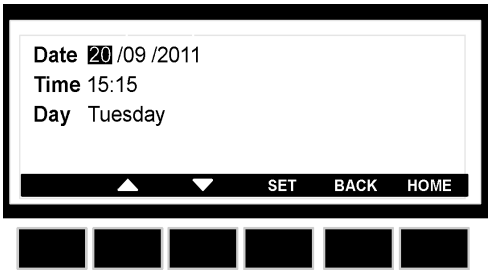
1. Push and immediately release the SET key: the display will show the Set Point value.
2. To modify the value push the SET key, the Set Point start flashing.
3. Use the UP and DOWN keys to modify the value.
4. To memorize the new Set Point value push the SET key again or wait 30sec.



Service menu:

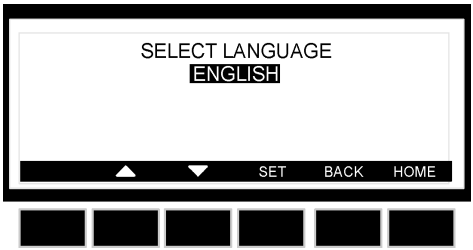
From the main view push the **SERVICE** key and the SERVICE menu is entered.
See below picture:

PROBES:
Enter the probes, to see the measured temperatures. 1-4 probes is availa ble depending on model.
PARAMETERS:
Enter the setting of the parameters. Please note that changes made to the parameters should only be made of a technician.
SELF TEST:
Enter the Self Test program of the controller.
CLOCK:
Enter clock menu, where it is possible to change date and time.
PASSWORD:
Enter the password menu, where it is possible to change the password.
LANGUAGE:Enter the language menu, where it is possible to change language.



How to set time and date:

1. Enter the SERVICE menu
2. Select CLOCK sub-menu
3. Push the ENTER key..
4. Set the day by means of the UP and DOWN keys.
5. Push the SET key, to confirm and pass to the setting of time.
6. Use the same procedure as for the date.
7. Then confirm the selection by means of the SET key.



How to change language:

1. Enter the SERVICE menu
2. Select LANGUAGE sub-menu
3. Push the ENTER key and the LANGUAG menu is entered.
4. Push the SET key and then use the UP and DOWN keys to select the language and then the SET key to confirm it.

Data menu:

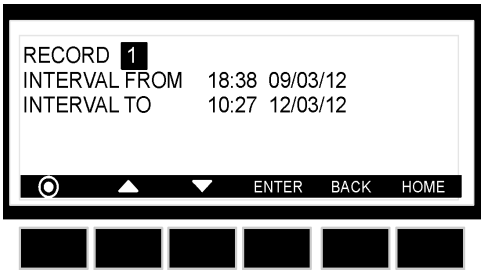
From the main view push the **DATA** key and the DATA menu is entered.
See picture:

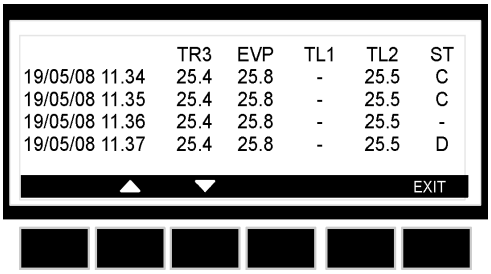
LOG: Enter the data logged by the controller.

EXPORT: Export the data to an USB pen drive delivered with the appliance.
GRAPH: Enter the graph showing the temperature logged the last 24h (with a logging interval of 15min.)

How to enter the log:

1. Enter the **DATA** menu
2. Select **LOG** sub-menu
3. Push the **ENTER** key and the **LOG** menu is entered.
4. By **UP and DOWN** keys chose the data interval to display
5. Push the **ENTER** key to display the selected data.





NOTE: THE ⊙ KEY: IS USED TO STOP AND START LOGGING.

Logged data will have this layout:

Where TR3, EVP, TL1, TL2 = Value of probes. With probe failure or absence:" - " symbol is displayed. Please note that 1-4 probes are available depending on model.

ST: status of the controller/load

- - = operating, without any load activated;
- D = defrost running (if automatic defrost is available)
- C = compressor working

How to export data:

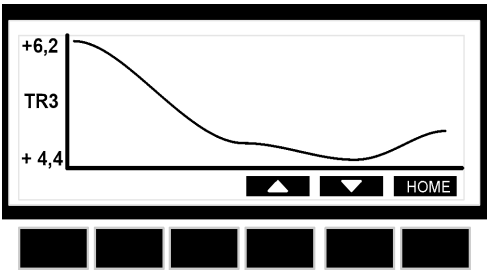
1. Enter the **EXPORT** menu
2. Insert the USB pen drive supplied by **Vestfrost.**
3. Select **ALARM or DATA,** the controller starts sending data to the pen drive, when the export is finished the message: **EXPORT - Copy** completed is displayed.

The exported data will be exported as a CSV-file (Comma Separated Values). This file can be used in ex. Excel for making graphs.

IMPORTANT: during the download don't remove the USB pen drive: this action could damage the data files and USB pen drive itself.

WARNING: leave the USB pen inserted only for the time necessary to export data then remove.

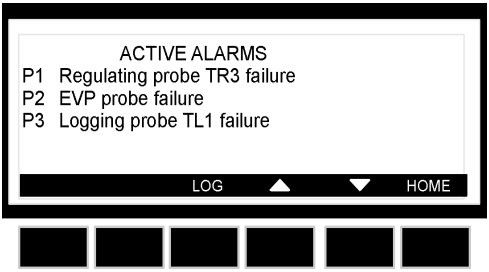
WARNING: if a not compatible USB pen drive is used it can cause a reset of the controller



How to enter the Graph:

1. Enter the DATA menu
2. Select GRAPH sub-menu
3. Push the ENTER key and the GRAPH menuis entered.
4. By UP and DOWN keys chose the probe that has to be displayed.
5. Push the HOME key to get back to the main view.

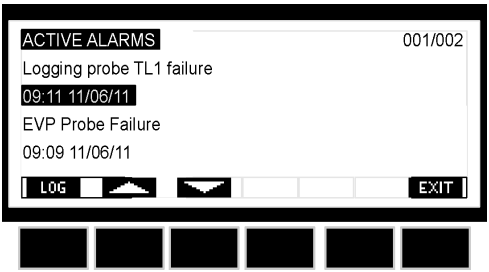
NOTE: A graph is erased when the controller is switched off.



Alarm menu:

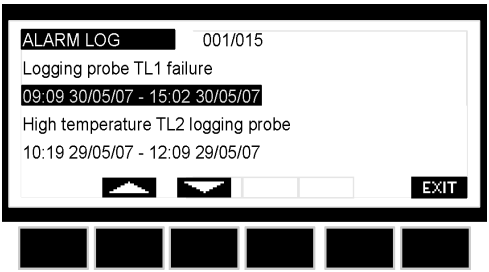
If the alarm icon is flashing on the main display, an alarm is occurring.
If the alarm icon is displayed but not flashing on the main display, an alarm is occurred and recovered.

Once the alarm signal is detected the buzzer can be silenced by pressing any key.



Active alarms:

1. Push the **ALARM** key to enter the alarm menu.
2. The alarm menu displays the active alarm with the following layout:
   a. **First column** = alarm code
   b. **Second column** = alarm description.
3. Push the LOG button to enter the **ACTIVE ALARM LOG.**
   This menu contains all the information concerning the active alarms. In the first line, it is displayed how many alarms are happening.
4. It's possible to move through the alarms by the UP and DOWN keys.
5. Push the LOG button to enter the **ALARM LOG.** This menu contains all the memorized alarms. For each alarm the starting time and date and the finish time and date are recorded.



“P1”	Regulating probe TR3 failure	Alarm output ON; Compressor output according to parameters Con and CoF
“P2”	EVP Probe Failure	Alarm output ON; Other outputs unchanged
“P3”	Logging probe TL1 failure	Alarm output ON; Other outputs unchanged
“P4”	Logging probe TL2 failure	Alarm output ON; Other outputs unchanged
“HA1”	TR3 High Alarm	Alarm output ON; Other outputs unchanged
“LA1”	TR3 Low Alarm	Alarm output ON; Other outputs unchanged
”HA3”	High temperature alarm probe TL1	Alarm output ON; Other outputs unchanged
”LA3”	Low temperature alarm probe TL1	Alarm output ON; Other outputs unchanged
”HA4”	High temperature alarm probe TL2	Alarm output ON; Other outputs unchanged
”LA4”	Low temperature alarm probe TL2	Alarm output ON; Other outputs unchanged
“dA”	Door Open Alarm	Compressor and fans depend on “rrd”
“EA”	External Alarm	Output unchanged
“CA”	Serious Alarm	All outputs OFF
	”Real Time Clock Error”.	Please set the date and time.

NOTE: Not all probes are present in all appliances.

Alarms at start up

When the unit is started up the first time the alarm will sound/show until the unit has reached the upper temperature alarm limit. This can take several hours.
It is possible to mute the alarm for 30 minutes. See below explanation.

Muting the alarm

When an alarm occurs any button on the display can be pushed to mute the alarm for 30 minutes. The alarm will still be visible at the display and the red LED will continue to flash.

Models BBR150, AKG/S 157-337-397

How to see and modify the set-point

How to: See the Set point

1. Push and immediately release the SET key: the display will show the Set point value.
2. Push and immediately release the SET key or wait for 60 sec to display the temperature in the unit.

How to: Change the Set point

1. Push the SET key more than 2 sec to change the Set point value.
2. The value of the set point will be displayed and the "°C" LED will start blinking.
3. To change the Set value push the UP or DOWN arrows within 60 sec.
4. To save the new set point value, push the SET key again or wait for 60 sec.

How to: Choose the right Set point

To ensure optimal operation of the BBR150, the correct set point has to be chosen. Depending on the temperature of the surroundings, 3 programs can be chosen:

25-27 °C: set 2
15-25 °C: set 3
10-15 °C: set 4

The device is pre-programmed with set point "set 3". To see the actual program, push and release the "SET" key immediately. The display will then show the set point value. To display the probe value again, either wait for 30 seconds or push and release the "SET" key.

NOTE: To exit without making any change to the set point, push the SET key or wait 60 sec.

Clock settings and RTC alarm reset RESET

1. Push the UP key once, to acces the menu.
2. The display shows HՈ, then push SET.
3. The parameters for setting time and date occurs. To set the parameter push SET, push the UP or DOWN button to change the parameter. Confirm by pushing SET.

The time and date parameters:
Hur: hour
Ոin: minutes
Udy: weekday
dAy: date
Ոon: month
yEA: year
To exit: Press **SET + UP** keys for about 10 sec.

How to export data and alarms to USB

1. Insert the **USB** key
2. Push the **DATA** key for more that 3 sec.
3. Controller starts uploading data to **USB**
4. At the end the following message will be displayed:
   a. **"End"** if everything it's ok
   b. **"Err"** if exporting has not taken place.

Alarms

The controller memorizes the last 100 alarms happened, together with their start and finish time. It's possible to export the alarms as described in the previous chapter.

Active alarms

Controller will show active alarm alternated with the temperature inside the unit.

Active alarms

Message	Cause
"PF1"	Regulating probe 3 failure
"PF2"	Probe failure
"PF3"	Logging probe 2 failure
"PF4"	Logging probe 1 failure
"HA1"	TR3 High Alarm
"LA1"	TR3 Low Alarm
"HA3"	High temperature alarm probe 2
"LA3"	Low temperature alarm probe 2
"HA4"	High temperature alarm probe 1
"LA4"	Low temperature alarm probe 1
"dA"	Door Open Alarm
"CA"	Serious Alarm

The alarm message is displayed until the alarm condition is recovered.
All the alarm messages are showed alternating with the temperature in the unit.
Except for the "PF1" which is flashing.

FAULT FINDING

Fault	Possible cause	Remedy
Screen of keybord is not lit.	Power failure; the fuse is blown; the appliance is not plugged in correctly, the power is cut.	Check that power is connected. Reset the fuse.
Temperature in refrigerator too high	The ventilation grille is blocked. The door is not closed properly. The temperature setting is too high	Ensure unhindered air circulation Close the door and wait 15 min. Lower the temperature setting.
Temperature in refrigerator too low.	The temperature setting is too low	Raise the temperature setting
Vibration or bother-some noise	The appliance is not level.	Level the appliance (For model with adjustable feet: use a spirit level)
Compressor runs continuously.	The temperature setting is too low. Too high room temperature.	Raise the temperature setting. Ensure adequate ventilation.
Display or alarm log shows "RTC" error or "Real time Clock Error"	The date and time are not set.	Please set the date and time.

MAINTENANCE

		Frequency			
TASK	**Description**	**Quarterly**	**Annually**	**3 Years**	**As neddede**
The compressor compartment and the condenser must be kept free of dust and dirt.	1. Unplug unit from power supply. 2. Use a vacuum cleaner to remove dust and dirt.	X			
Refilling of mixture in reference bottle, and cleaning of bottle and sensor	1. Remove the bottle. 2. Our recommendation: Fill it with 100ml with a mixture of water and alcohol (min 70%) in ratio 1:1 3. Place the bottle back in the refrigerator and place the sensor in the liquid. Make sure the whole sensor is covered in the liquid.	X			
The door gasket around the door must be cleaned regularly.	1. Wipe the seal with a soft cloth and clean water. 2.Check that it continues to provide a tight seal.				X
Perform a temper- ature calibration at least once a year.	A certified technician must make the calibration.		X		
Defrost and clean the chamber to prevent ice building.	**Automatic defrosting:** The refrigerator is defrosted automatically. Defrost water runs through a pipe and is collected in a tray above the compressor where the heat generated by the compres¬sor causes it to evaporate. The defrost water tray should be cleaned when needed or at least once a year				X
Replace the battery backup for the controller every 3 years.	Only a certified technician must replace the battery.			X	
Clean the interior and exterior of the device.	1. Use warm water (max. 65°C) with a little mild, perfume-free detergent with a soft cloth. 2. Rinse with clean water and dry thoroughly. Note: For disinfecting the device we recommend the following base of disinfectant: alcohols and aldehydes. Chlorine and peracids can also be used, but please be aware that chlorine and peracids based products can inflect on the surface of materials, there for a careful washing off with clear water and wiping off, after disinfecting, is very important.				X

GENERAL INFORMATION

Warranty, spare parts and service

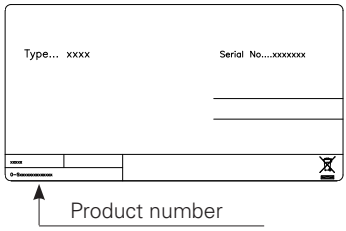
Warranty disclaimer

Faults and damage caused directly or indirectly by incorrect operation, misuse, insufficient maintenance, incorrect building, installation or mains connection. Fire, accident, lightening, voltage variation or other electrical interference, including defective fuses or faults in mains installations. Repairs performed by others than approved service centres and any other faults and damage that the manufacturer can substantiate are caused by reasons other than manufacturing or material faults are not covered by the warranty.
Please note that changes to the construction of the appliance or changes to the component equipment of the appliance will invalidate warranty and product liability, and the appliance cannot be used lawfully. The approval stated on rating plate will also be invalidated.
Transport damage discovered by the buyer is primarily a matter to be settled between the buyer and the distributor, i.e. the distributor must ensure that such complaints are resolved to the buyer's satisfaction.

Before calling for technical assistance, please check whether you are able to rectify the fault yourself. If your request for assistance is unwarranted, e.g. if the appliance has failed as a result of a blown fuse or incorrect operation, you will be charged the costs incurred by your call for technical assistance.

Spart parts

When ordering spare parts, please state the type, serial and product numbers of your appliance. This information is given on the rating plate. The rating plate contains various technical information, including product- type and serial numbers.



DISPOSAL

Information for Users on Collection and Disposal of Old Equipment and used Batteries

These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries should not be mixed with general household waste. For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points, in accordance with your national legislation and the Directives 2012/96/EU and 2006/66/EC.

By disposing of these products and batteries correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling.

For more information about collection and recycling of old products and batteries, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

For business users in the European Union.

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

Information on Disposal in other Countries outside the European Union

These symbols are only valid in the European Union. If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

Note for the battery symbol:

This symbol might be used in combination with a chemical symbol. In this case it complies with the requirement set by the Directive for the chemical involved.

NOTE:

It is very important to dismount the door before disposal. This to prevent any accident by children playing with the cabinet and door.

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VESTFROST SOLUTIONS