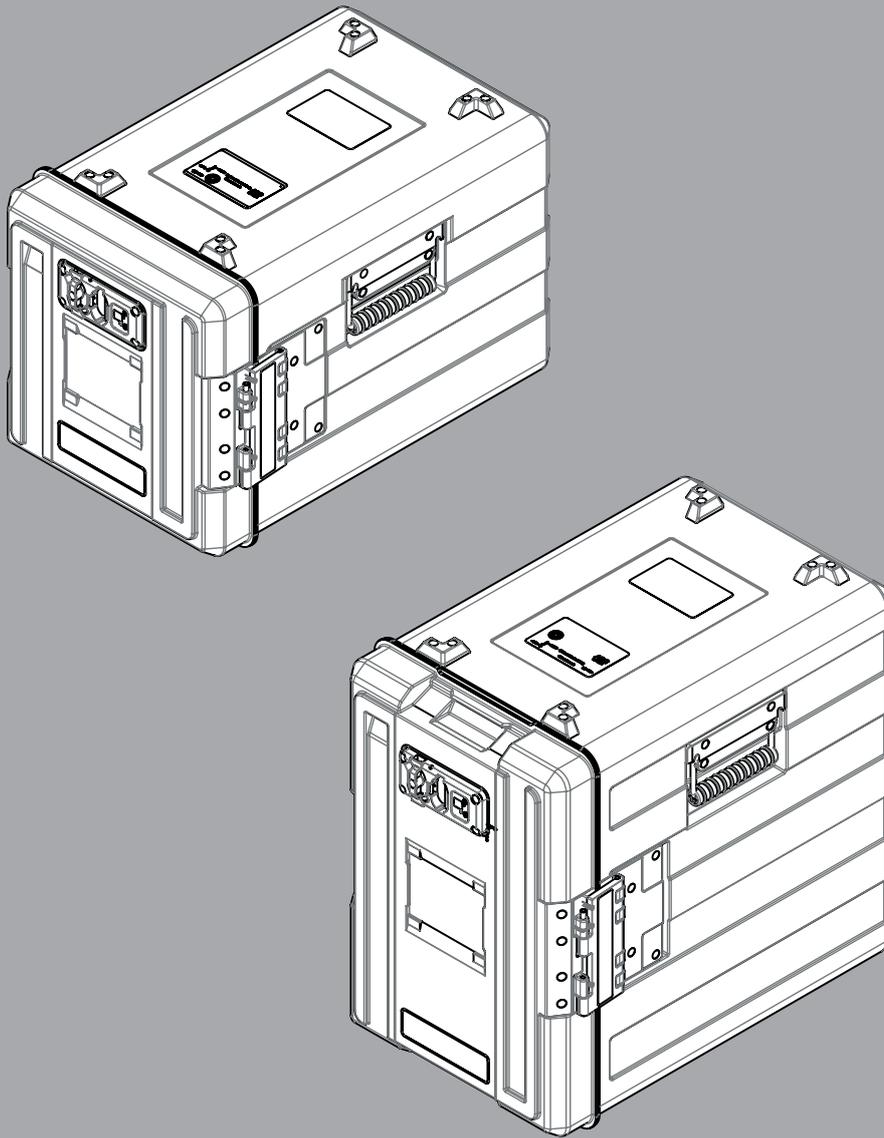


B.PRO
CATERING SOLUTIONS



B.PROTHERM

420 KBUH/420 KBRUH/ 620 KBUH/620 KBRUH

Translation of the original operating instructions

General information

Copyright These instructions are protected by copyright. None of this information may be reproduced, distributed, used to the advantage of our competitors, or made accessible to third parties either completely or in part.

Technical changes Subject to modifications for the purpose of technical improvement.

Product documentation Translation of the original operating instructions;
target group: operating personnel, kitchen directors.

Typographical conventions

-  Important **note** on special features or special cases.
- i** **Explanatory information** in chapters or sections containing instructions.
-  **Cross reference** to a chapter, section or external document.
- ✓ **Requirement** which must be fulfilled before the subsequent steps can be carried out.
- ▶ **Action** or activity which must be carried out.

Unit model XYZ

A section identified in this way applies only to a particular **unit variant** or unit option.

Warnings

Signal word!

Type and source of danger

Possible consequences of non-compliance with warnings.

- ▶ Measures to avoid dangers and the consequences thereof.
-

The signal word (caution, warning, danger) indicates the level of danger.

Caution warns of possible minor bodily injuries or damage to property.

Warning warns of possible serious bodily injuries.

Danger warns of possible severe/fatal bodily injuries.

Contents

About this product	Application	1
	Conditions of use	1
	Product features	1
Safety	General information	3
	About this product	3
	Transport	4
	Commissioning	4
	Operation	4
	Cleaning and care	6
	Maintenance	7
	Repairs	7
	Standards and guidelines	8
	Product marking	8
Transport	Checking for/reporting on damage incurred during transportation	9
	Scope of delivery	9
	Unpacking	9
	Disposing of packaging material	9
Commissioning	Prerequisites for operation	10
	Connecting unit	10
Operation	Unit overview	12
	Temperature control – overview	13
	Displaying the setpoint temperature	14
	Setting the setpoint temperature	14
	Opening a unit door	15
	Closing the unit door	16
	Preheating the unit	16
	Loading the unit	17
	Moving unit to a new location	18
	Keeping food hot	19
	Removing food	19
Shutting down	Shutting unit down	21
Troubleshooting	LED/temperature display does not light up	22
	Operation indicator LED illuminates, but temperature of food is not (sufficiently) maintained	22
	Temperature display is lit, but food temperature is not (adequately) maintained	23
	The unit has external damage	23
	The empty unit increases in weight	23
Short Diagnosis of BPT 420/620 KB(R)UH from Version 2	Two-colour Power/Status LED	24
	Error messages	24
	Temperature display	24
	Error messages	25
Cleaning and care	Cleaning frequency	26
	Cleaning methods	26
	Cleaning agent	26
	Cleaning unit	27
	Detaching the unit door	28

Maintenance	Having unit regularly maintained	29
	Treating the sealing cap on the unit socket outlet with a rubber-care agent	29
	Having periodical electrical safety inspection carried out	29
	Checking connection cable and mains plug	29
Repairs	Authorised persons	30
	Fault description	30
	Spare parts	30
	Address	30
Disposal	Disposing of unit	31
Technical data	General data	32
	Electrical data	32
	Environment	33
Ordering information	B.PROTHERM 420 KBUH	33
	B.PROTHERM 420 KBRUH	33
	B.PROTHERM 620 KBUH	33
	B.PROTHERM 620 KBRUH	33
	Operating instructions	33
Accessories	Menu card set	33
	Gastronorm containers	33
	Slide-in frame	33
	Support crossbars	33
	Transport trolleys	33
	B.PRO microfibre cleaning cloth	33

About this product

Application B.PROTHERM 420 KBUH/420 KBRUH/620 KBUH/620 KBRUH is designed for the following applications:

- Keeping food hot in lidded Gastronorm containers
- Transporting food in lidded Gastronorm containers

The B.PROTHERM 420 KBUH/420 KBRUH/620 KBUH/620 KBRUH is not suitable for heating up or cooking food.

It is not permitted to store or transport goods which have a detrimental affect on food.

B.PROTHERM 420 KBUH/420 KBRUH/620 KBUH/620 KBRUH must not be used as a room heater.

The convection heating in the unit door may only be operated with the door closed in conjunction with the B.PROTHERM 420 KBUH/420 KBRUH/620 KBUH/620 KBRUH.

The B.PROTHERM 420 KBUH/420 KBRUH/620 KBUH/620 KBRUH is particularly suitable for use in social facilities (clinics, retirement homes, children's day care centres), hotels, the food service industry (banquets, party services) and in company catering (canteens, dining halls).

It is not permissible to transport persons with or on the unit or its attachments. The unit must not be used as a substitute for a ladder or as a (children's) climbing frame (danger of tipping).

The unit may not be used to transport or store dangerous or toxic substances/liquids.

Conditions of use Environment

The unit may be used when the ambient temperature is between +15 °C and +38 °C and at normal humidity (without condensation).

The unit has been developed for use up to 2,000 m above sea level.

Instruction of third parties

If the unit is lent to third parties, these persons must be instructed in the safe handling of the unit and possible dangers must be pointed out.

Product features General information

The B.PROTHERM 420 KBUH/420 KBRUH/620 KBUH/620 KBRUH is made of polypropylene.

The walls and unit door are filled with PUR foam.

The unit can be heated up. The convection heating is found in the unit door. The temperature is thermostatically limited.

The B.PROTHERM 420 KBUH/420 KBRUH/620 KBUH/620 KBRUH is available with two different temperature control units:

- B.PROTHERM 420 KBUH/620 KBUH: unit model with a fixed setpoint temperature of approx. +90 °C
- B.PROTHERM 420 KBRUH/620 KBRUH: unit model with temperature control units for variable setting of setpoint temperature. The temperature can be set in increments of one degree in a range between +40 °C and +85 °C. A setpoint temperature of around +90 °C is reached at the maximum setting ("Full Power Mode").

The B.PROTHERM 420 KBUH/420 KBRUH/620 KBUH/620 KBRUH is equipped with a unit door locked using a bent-clamp closure. The patented door hinge allows the unit door to be fitted in a specific position if required.

Operation

The B.PROTHERM 420 KBUH/420 KBRUH/620 KBUH/620 KBRUH is loaded with GN 1/1 Gastronorm containers. Their subdivisions can also be used by fitting a slide-in frame and support crossbars (accessory).

The B.PROTHERM 620KBUH/620KBRUH can, for example, hold two Gastronorm containers with a depth of 200 mm (GN 1/1 – 200), and the B.PROTHERM 420KBUH/420KBRUH two Gastronorm containers with a depth of 150 mm (GN 1/1 – 150).

An operation indicator LED signals the B.PROTHERM 420KBUH/620KBUH's operating mode.

The B.PROTHERM 420KBRUH/620KBRUH features a two-digit temperature display. The temperature display is located next to the plug recess.

After preheating for 45 minutes, room temperature has been heated up to +75 °C +/- 5 °C in an empty unit with the unit door closed (B.PROTHERM 420KBRUH/620KBRUH in "Full Power" mode).

Effective insulation keeps the temperature of the food placed in the unit constant for a long period of time, even without actively heating. The unit fulfils Thermal Class A specifications as stipulated in BS EN 12571.

The synthetic skids on the bottom of the unit guarantee stability. Up to two units can be stacked one on top of the other using the stacking corners on top of the unit.

Synthetic, wear-resistant carrying handles are attached to the long sides of the unit.

The unit door of the B.PROTHERM 420 KBUH/420 KBRUH/620 KBUH/620 KBRUH is equipped with a menu holder. The contents of the unit, for example, can be written on the menus (available as an accessory).

B.PRO supplies a variety of transport trolleys for the B.PROTHERM 420 KBUH/420 KBRUH/620 KBUH/620 KBRUH.

Cleaning

The unit door can be removed. The unit door, including the convection heating, is to be wiped clean with a damp cloth only. The plug recess is watertight when closed.

The unit body (without unit door) can be cleaned in a dishwasher if the temperature inside the dishwasher does not exceed +90 °C.

Repairs

The wear parts (skids, handles, hinges and stacking corners) can be easily replaced.

Safety

General information The unit has been built using state-of-the-art technology. All the requirements necessary to ensure safe operation have been met. Nevertheless, residual risk does exist when operating the unit. The safety precautions and warnings in these operating instructions are there to help you protect yourself against these hazards.

Safety precautions

Carefully read and observe the safety precautions in this chapter.

The operator is responsible for ensuring that safety precautions in these operating instructions are observed.

Warnings

Observe the warnings with the danger symbol (warning triangle) in the text.

Operating instructions

These operating instructions must be read carefully prior to commissioning.

The operator is responsible for ensuring that all users have read these instructions before operating the unit for the first time.

Store these operating instructions in a location which is always accessible to operating personnel.

Cleaning and maintenance

For cleaning, maintenance or parts replacement, disconnect the unit from the power supply. During the work to be performed, keep the mains and/or unit plug in a suitable place and protect it from moisture, damage and dirt.

About this product

Application

The unit may only be used for the applications specified.

The operator is responsible for ensuring appropriate and proper use of the unit.

Conditions of use

The unit may only be operated under the permissible ambient conditions.

Users of the unit must be instructed in its operation and must have understood these operating instructions.

Warning signs

The following warning signs are mounted to the unit:

Warning sign	Meaning - position of attachment
	"Spraying with water prohibited" sticker as per DIN 4844-2 on the convection heating cover plate (inside of door)
	"Hot surface warning" sticker as per DIN 4844-2 on the heating cover plate (inside of door)

Replace illegible, damaged or missing signs immediately.

Transport Upright transport position

Transport the unit in an upright position only.

Stacking several units

Stack no more than two units one on top of the other. Always secure stacked units to prevent them from tipping over.

Transporting with a truck or delivery vehicle

Secure the unit on all four sides to prevent it from shifting.
Secure the unit against vertical movement during transport.

Commissioning Commissioning after storage

When the unit is brought from a cold storage room to a kitchen, moisture from the air in the room condenses on the surface of the unit. When the unit is connected to the mains, there is a danger of the moisture film causing a short-circuit or an electric shock.

Do not operate the unit until it has reached room temperature.

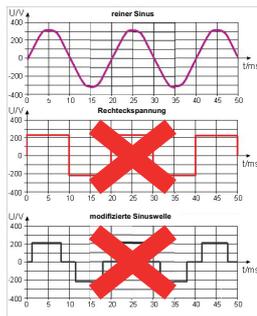
Mains connection

The mains voltage and frequency specified on the rating plate must match the corresponding values for the mains socket outlet.

Use an original mains connection cable only.

The unit may not be used if the insulation on the mains cable, power plug or unit plug is damaged.

Always unplug the mains plug and unit plug directly at the plug housing.



Operation on inverters

When using inverters (e.g. motor vehicle operation), always make sure that a purely sinusoidal alternating current ("pure sine") is output at the output.

The use of inverters which do not meet this requirement will result in a defect in the temperature control, and therefore in the failure of the unit.

Convection heating/Unit door

The convection heating is built into the removable unit door. Forceful impact or vibrations can damage the convection heating. Avoid forceful impact and vibrations.

Operate the unit with the original unit door only.

The convection heating in the unit door may only be operated with the door closed in conjunction with the B.PROTHERM 420 KBUH/420 KBRUH/620 KBUH/620 KBRUH.

Operation General information

The user must be aware of the hazards that the unit presents and be able to assess them.

The unit may only be operated by persons whose physical, sensory or mental abilities are not subject to any restrictions relevant to operating the unit.

 **Caution!****Possible impairment of food quality!**

If a power failure, unit malfunctions or other interruptions occur during storage or regeneration, the quality of the food stored in the unit may be impaired.

- If the core temperature has fallen, check whether the food quality has been impaired and dispose of any spoilt food if necessary.
-

Damage

The unit is only to be used when it is in proper working order.

If the unit is damaged, secure it against inadvertent use and inform B.PRO Service immediately.

Hygiene regulations

Observe the corresponding regulations on foodstuffs and the properties of the food when keeping food hot.

Stacking several units

Stack no more than two units one on top of the other.

Gastronorm containers with liquid food

Food which sloshes around and runs out of the unit can cause scalding. Always seal Gastronorm containers filled with liquid food with a sealing lid. Prevent jerky movements of the Gastronorm containers.

Loading

Load unit with lidded Gastronorm containers only.

Gastronorm containers placed in the unit must be able to withstand a temperature of at least +100 °C. Polycarbonate Gastronorm containers must not be used, for example.

The Gastronorm containers are only to be used when they are in proper working order. The edge may not be deformed or sharp. If this is the case, the inside walls of the unit may be damaged.

Synthetic in the unit can be damaged at temperatures above +100 °C. Do not place Gastronorm containers or other objects hotter than +100 °C in the unit, e.g. Gastronorm containers heated in a combination steamer.

Operation

The convection heating in the unit door may only be operated with the door closed in conjunction with the B.PROTHERM 420 KBUH/420 KBRUH/620 KBUH/620 KBRUH. A large amount of heat is lost if the unit is operated with the unit door open.

Do not operate external heat sources inside the unit.

Do not put an open flame inside the unit.

The unit door does not seal completely when closed. Hot steam can exit the unit while keeping the food hot Danger of scalding!

Hot convection heating, unit parts, objects and food

The convection heating, the unit interior and objects contained within the unit (e.g. Gastronorm containers) heat up during operation (up to approx. +90 °C) and can cause burns. Protection (e.g. with pot holders or protective gloves) must be used when handling hot objects.

 **Warning!**

Danger of scalding!

The unit lid does not close completely leak-tight, as otherwise a vacuum would form during cooling, making it impossible to open the lid. As the lid does not seal completely leak-tight, hot steam can exit the unit while keeping the food hot, causing severe burns.

- Open lid with great caution; wear protective gloves if necessary.
-

Change of location

The unit may be heavy when loaded. Lifting heavy loads can cause injuries. This applies in particular for people who already have weakened musculo-skeletal systems.

To minimize danger to your health, always lift the unit with a second person. If possible, use suitable equipment to lift the unit.

Move the unit while upright, e.g. do not lay the unit on its side.

Hold unit door closed while changing its location.

Secure units stacked one on top of the other against tipping before changing their location.

All possible measures must be taken to prevent risk to people or objects if a mobile support such as a transport trolley is used to move a unit or two stacked units. This includes the following:

- Do not exceed the maximum load capacity of the support
- Secure the unit(s) to the portable support so that they cannot tip over
- Always move the unit(s) with two people
- Only surfaces with an incline of less than 10° may be crossed
- Secure the unit(s) from rolling away accidentally

The skids on the unit are worn down when it is moved directly on the floor. To prevent the skids from wearing down, do not pull or push the unit directly on the floor.

Under no circumstances push or pull crossways to the skids. Danger of tipping.

The edges and corners of the synthetic body can be damaged by forceful impacts. Water can seep into the unit walls in this case, especially when cleaning in a dishwasher.

Always handle the unit with care. Avoid impacts.

Cleaning and care **Hygiene**

You must comply with the regulations in the 93/43/EEC hygiene directive and national hygiene regulations.

Cleaning frequency

Clean the unit thoroughly after each use.

Cleaning methods

Use only approved cleaning methods.

Do not use pointed or sharp objects for cleaning.

Do not use a steam jet unit or high-pressure cleaner.

Cleaning agent

Use only approved cleaning agents.

Do not use scouring agents. Scouring agents scratch the surface.

Do not use any of the following cleaning agents (damage to material!):

- Ethyl alcohol, isopropyl alcohol and higher alcohols
- Acetone
- Benzene
- Turpentine
- Acetic ester

Convection heating

Water which penetrates into the convection heating can cause a short circuit. If this happens, there is a risk of electric shock.

Unplug the power plug and unit plug before cleaning.

Do not use metal parts for cleaning. Metal parts can damage the unit and/or lead to corrosion.

Unit socket outlet

Water which penetrates into the unit socket outlet can cause a short-circuit. If this happens, there is a risk of electric shock.

Unplug the mains plug and unit plug before cleaning the unit. Store the mains connection cable in a suitable place and protect it from moisture. Seal the unit socket outlet watertight with the sealing cap.

Hot convection heating, hot unit parts and objects

The convection heating, unit interior and the objects located within become hot while the unit is in operation (danger of burns!). Allow the unit to cool off before it is cleaned.

Cleaning water

Dry the unit thoroughly after cleaning.

There is a danger of slipping if cleaning water runs out onto the floor during or after cleaning.

Completely wipe up cleaning water which runs out onto the floor.

Maintenance Periodical electrical safety inspection

Have a professional electrician perform a periodical electrical safety inspection as per the DIN VDE 0701-0702 series of standards at least once every six months.

Connection cable and mains plug

Check the connection cable and mains plug for mechanical damage and signs of excessive deterioration as per BGV A 3 or corresponding national regulations at least once every six months.

Repairs Authorised persons

Only personnel trained by B.PRO may repair the unit. Notify B.PRO Service in the event of damage.

The warranty will be invalidated if the unit is repaired by anyone else or without being commissioned.

Standards and guidelines Observe the applicable standards, guidelines and safety regulations.
The operator is responsible for compliance with the applicable standards, guidelines and safety regulations.

Product marking The unit is provided with a rating plate. The warranty is voided if the rating plate is removed.

Transport

Checking for/reporting on damage incurred during transportation

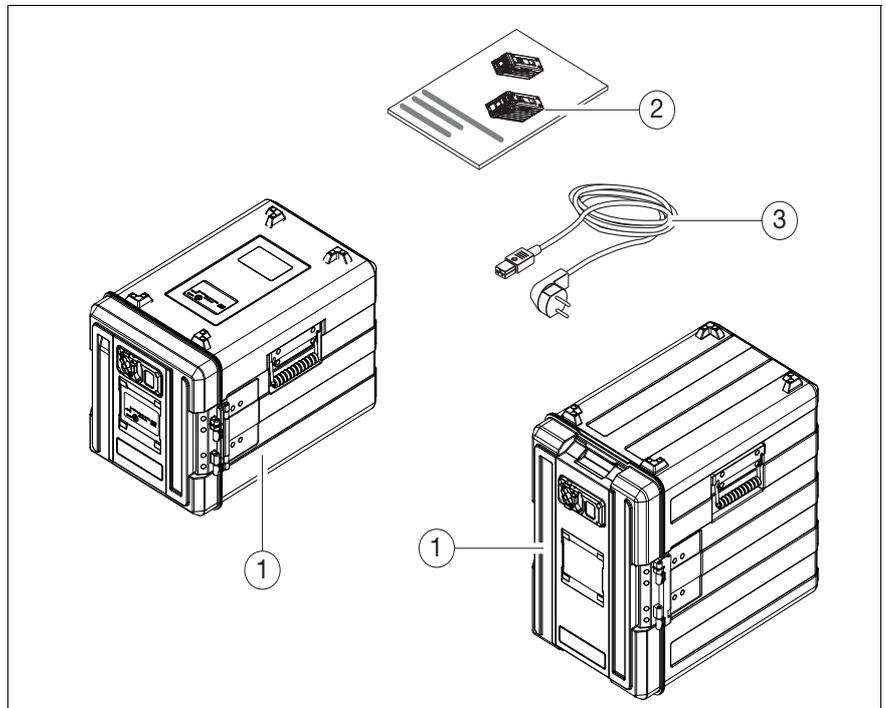
- ☞ The unit must be checked for damage incurred during transport (visual inspection) immediately after delivery.
- Document any damage incurred during transport (description of defect) on the waybill in the presence of the carrier.
- Have the carrier confirm the damage (signature).
- Keep the unit and make a complaint to B.PRO about the damages and include the waybill.

– or –

Do not accept the unit and return it to B.PRO via the carrier.

- ☞ This procedure ensures that damage claims are handled correctly. The unit recipient must provide suitable proof if transport damage is reported at a later point in time.

Scope of delivery



- (1) B.PROTHERM 420 KBUH/420 KBRUH or 620 KBUH/620 KBRUH
- (2) Operating instructions
- (3) Mains cable

The exact scope of delivery and model of the unit is to be taken from the delivery documentation.

Unpacking

- Open the transport packing at the places provided. Do not rip or cut it!
- Check the scope of delivery.

Disposing of packaging material

- ☞ Packaging materials are recyclable.
- Recycle packaging materials in a proper, environmentally responsible manner as per applicable statutory requirements.

Commissioning

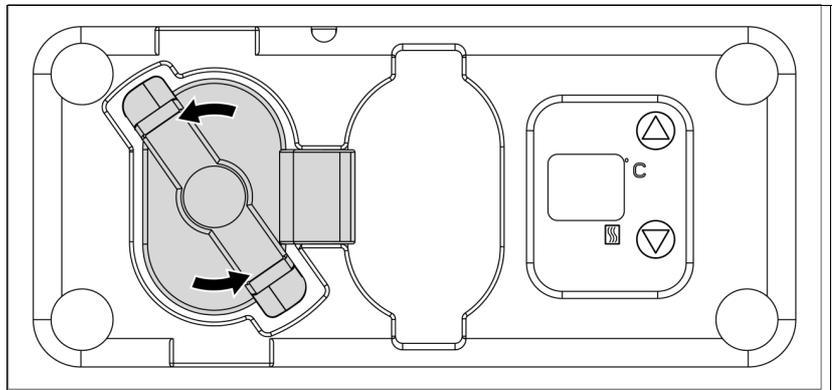
- Prerequisites for operation**
- ✓ There are no signs of defects or visible damage to the unit
 - ✓ Sinusoidal voltage when unit is operated via an inverter (e.g. motor vehicle operation)
- Connecting unit**
- ☞ The unit does not have an "On/Off" switch. The unit is "switched on" by connecting it to the power supply.
 - ☞ The in-house RCCB or fuse may trigger if too many cold units (maximum power consumption) are connected to the power supply at the same time.
 - ☞ Section "Electrical data" on page 32.

Caution!

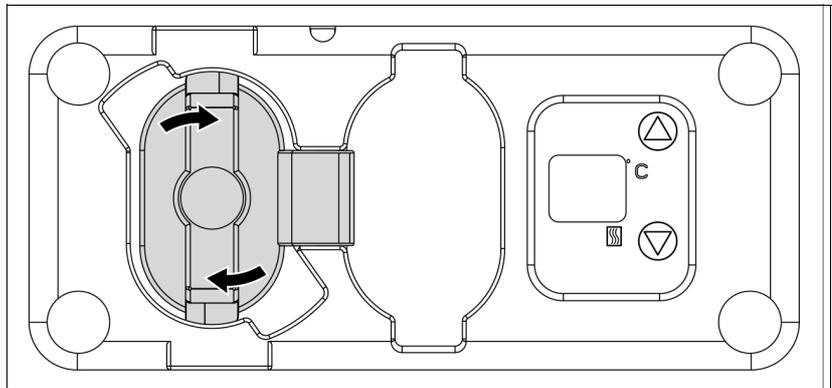
Damage to the unit electrical system!

If the unit is not rated for the mains voltage or frequency which is available, the unit electrical system may suffer permanent damage.

- Before connecting, make sure that the mains voltage and mains frequency on the rating plate correspond with those for the mains socket outlet.
- Ensure that no objects which are sensitive to heat are located inside the unit.
- Ensure that there are not too many units connected to the power supply at the same time
- Open the sealing cap of the unit socket outlet (on the rear side of the unit) by turning the locking grip counterclockwise.



- Fold sealing cap over and snap into the recess.



- ▶ Insert unit plug into the unit socket outlet.

B.PROTHERM 420 KBUH/620 KBUH

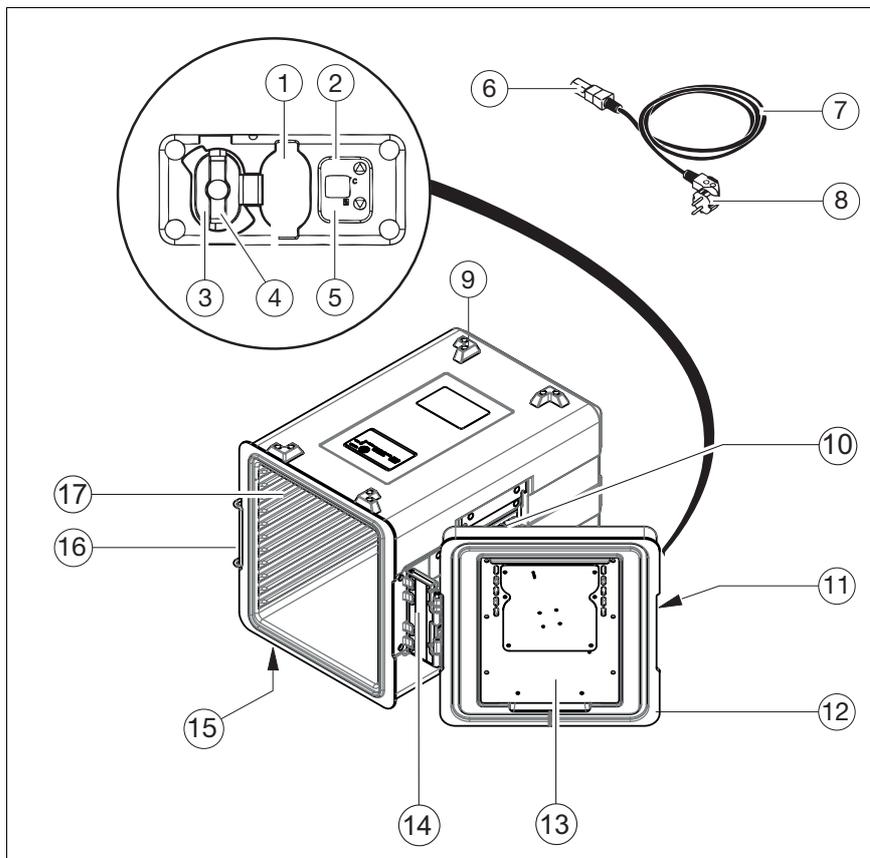
- ▶ Plug the mains plug into the socket outlet.
The operation indicator LED flashes GREEN during the heat-up phase.
The LED lights up continuously when the heat-up phase is ended and the temperature is reached.
- ☞ The heating is switched on and off on the temperature control unit. The operation indicator LED will flash green whenever the heating is switched on. The operation indicator LED will be lit green continuously whenever the heating is switched off.

B.PROTHERM 420 KBRUH/620 KBRUH

- i** The factory setting of the unit is the "Full Power" mode (FP). The unit reaches the maximum temperature (approx. +90 °C) in the "Full Power" mode.
- ▶ Plug the mains plug into the socket outlet.
The temperature display performs a LED self-test and displays 88 briefly during the test.
The temperature display then switches to the actual temperature.
A dot LED to the right of the second temperature-display digit indicates that heating is active.
- ☞ When the temperature control switches the heating off, the LED to the right of the second digit goes out. The temperature control can switch heating off if the setpoint temperature is not yet reached.

Operation

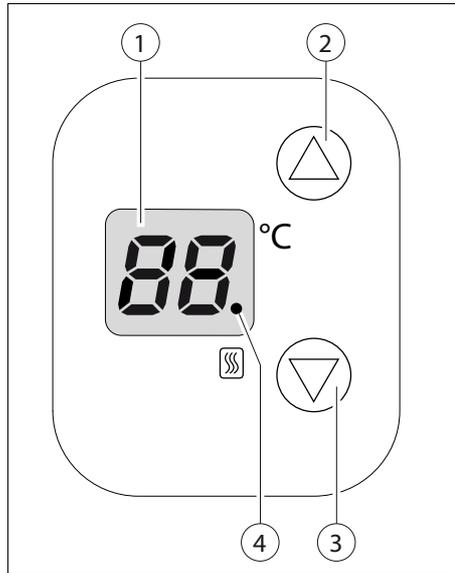
Unit overview



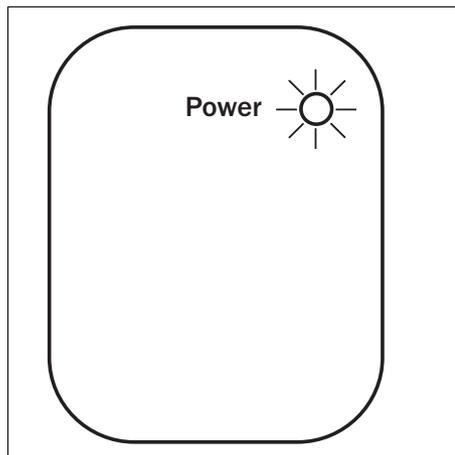
- (1) Recessed area for the sealing cap when folded up
- (2) Plug recess
- (3) Sealing cap; unit socket outlet is located behind this
- (4) Locking grip of the sealing cap
- (5) On the front side of door BPT 420/620 KBUH: film with operation indicator LED BPT 420/620 KBRUH: Temperature control
- (6) Unit plug
- (7) Mains cable
- (8) Mains plug
- (9) Stacking corner
- (10) Carrying handle
- (11) On the front side of door: Menu card holder
- (12) Unit door
- (13) Convection heating (in the unit door)
- (14) Door hinge
- (15) On the underside: Skids
- (16) Locking latch of the door lock
- (17) Support ledge

☞ A menu card holder (accessory) can be placed in the menu holder. You can write the name of the food contained in the unit on the menu with a felt-tip pen.

Temperature control – overview Temperature control

B.PROTHERM 420 KBRUH/620 KBRUH

- (1) Temperature indicator: when the unit is switched on, the actual temperature inside the unit is displayed. The setpoint temperature is displayed when a button is pressed. An error code is shown on the temperature display if an error has occurred.
- (2) "Up" button: raises the setpoint temperature (press repeatedly or hold down for several seconds).
- (3) "Down" button: lowers the setpoint temperature (press repeatedly or hold down for several seconds).
- (4) Dot-shaped LED indicator "Heating in operation" lights up when the heating is active.

B.PROTHERM 420 KBUH/620 KBUH

- ☞ The setpoint temperature is fixed at +90 °C on the B.PROTHERM 420 KBUH/620 KBUH. These units feature a film with an operation indicator LED instead of the temperature display and buttons. The operation indicator LED flashes GREEN during the heat-up phase. The LED lights up continuously when the heat-up phase is ended and the temperature is reached.

Displaying the setpoint temperature

B.PROTHERM 420 KBRUH/620 KBRUH

- i** The temperature range of the temperature control lies between +40 °C and +85 °C. The maximum temperature (approx. +90 °C) is reached in the unit in the "Full Power" mode (FP). The "Full Power" mode is the factory setting of the unit.
- Connect the unit to the power supply.
 - ↳ Section "Connecting unit" on page 10.

The temperature display performs a LED self-test and displays 88 briefly during the test.

The temperature display then switches to the actual temperature.

A dot LED flashing to the right of the second temperature-display digit indicates that heating is active.
- To display the setpoint temperature, briefly press any button at the temperature control.

The setpoint temperature is displayed. The message FP indicates "Full Power" mode, i.e. the maximum setpoint temperature.

The display automatically switches back to the actual temperature a few seconds later.

Setting the setpoint temperature

B.PROTHERM 420 KBRUH/620 KBRUH



- ↳ The lowest temperature setting is +40 °C, and the highest FP (Full Power), which corresponds to a temperature of about +90 °C.
- ↳ While the setpoint temperature is being set, the unit switches off heating automatically. The dot LED to the right of the second temperature-display digit does not illuminate. When the setpoint temperature is set, heating switches on automatically if the actual temperature is too low.
- ✓ Unit is connected to the power supply
- To lower the setpoint temperature, press the "down" button briefly several times in succession.

The initial press displays the setpoint temperature (FP indicates "Full Power" mode). Each subsequent press reduces the setpoint temperature by 1 °C.

– or –

Press and hold down the "down" button.

After approx. 1 second, the temperature setting changes continuously.
- To raise the setpoint temperature, press the "up" button repeatedly.

The initial press displays the setpoint temperature (FP indicates "Full Power" mode). Each subsequent press increases the setpoint temperature by 1 °C.

– or –

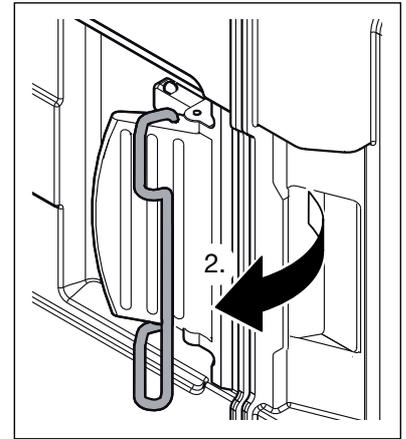
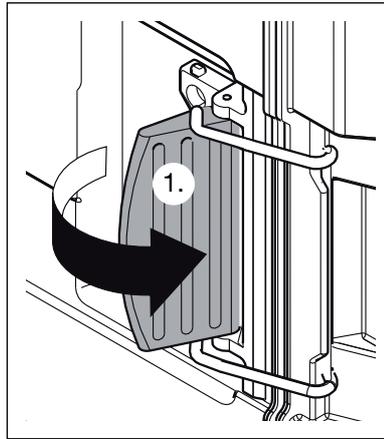
Press and hold down the "up" button.

After approx. 1 second, the temperature setting changes continuously.

- ▶ When setting is complete, wait until the temperature display switches to the actual temperature.
The last setting of the setpoint temperature is saved automatically.
- ⓘ The unit continuously saves the setpoint temperature. If the voltage supply is interrupted, the last set setpoint temperature is active.
- ⓘ If the voltage supply is interrupted while a new setpoint temperature is being set, the previous setpoint temperature remains unchanged. The unit saves a new setpoint temperature when the temperature display returns to the actual temperature.

Opening a unit door

- ✓ Unit disconnected from the power supply
- ▶ Open the locking lever until the locking latch disengages (1).
- ▶ Swing locking latch out of the way (2).



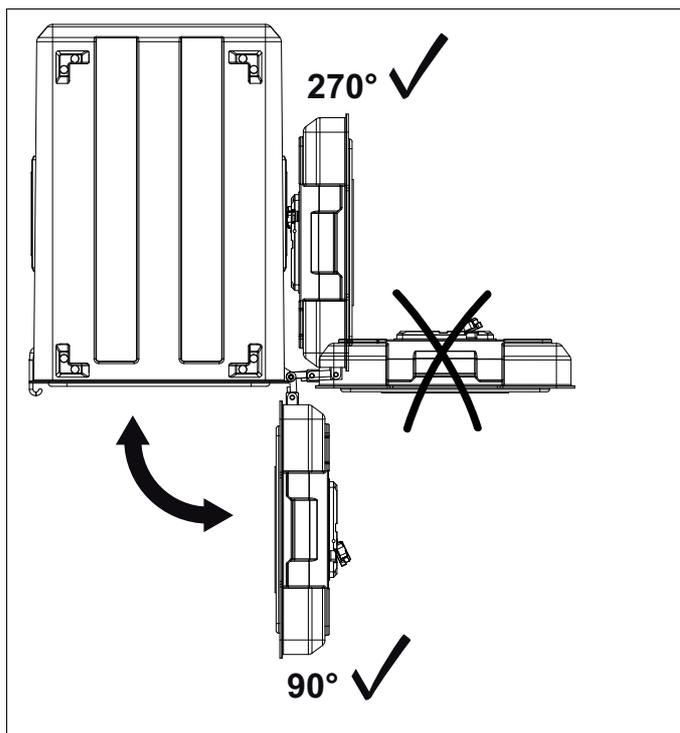
- ▶ Open the unit door.

Caution!

Danger of tipping!

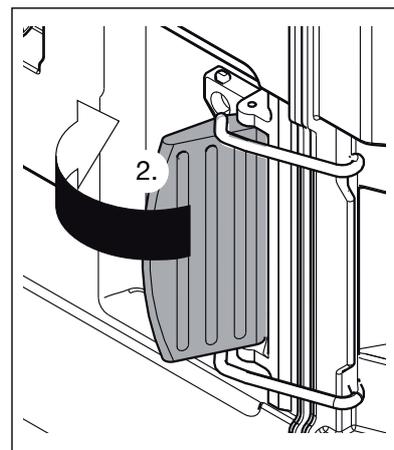
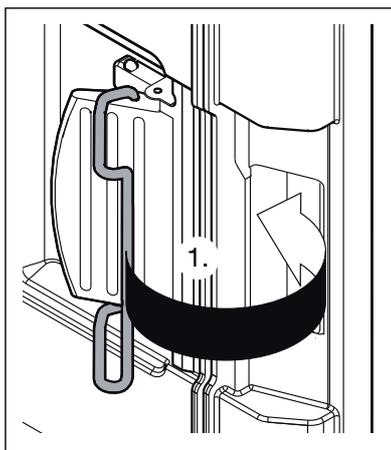
There is a risk of the container tipping over due to the unit door's centre of gravity if the unit door is opened to an adverse angle.

- ▶ Select door opening angle 90° or 270°. Do not use any other door opening angles and provide safety measures to prevent tipping.



Closing the unit door

- Close the unit door.
- Hook the locking latch (1.) and close the locking lever (2.).



Preheating the unit

- ☞ Preheating is not necessary if a large portion of the unit's volume is loaded with hot food. If only a small amount of hot food is inserted, we recommend preheating the unit before loading it with food.

B.PROTHERM 420 KBUH/620 KBUH

- ☞ After preheating for 45 minutes, the interior of the empty unit has heated up to +75 °C +/- 5 °C.

B.PROTHERM 420 KBRUH/620 KBRUH

- ☞ The interior of the empty unit has heated up to +75 °C +/- 5 °C after preheating for 45 minutes in "the Full Power" mode.
-

- ✓ Unit not loaded
- Ensure that no objects which are sensitive to heat are located inside the unit.
- Close the unit door.
 - ↳ Section "Closing the unit door" on page 16.
- Connect the unit to the power supply.
 - ↳ Section "Connecting unit" on page 10.

B.PROTHERM 420 KBRUH/620 KBRUH

- Set the setpoint temperature if necessary.
 - ↳ Section "Setting the setpoint temperature" on page 14.
 - Preheat unit as long as desired.
-

Loading the unit

- ☞ Always load the unit from bottom to top in order to keep the unit's centre of gravity as low as possible.
- ☞ B.PRO recommends loading with Gastronorm containers made of stainless steel (good heat conductivity compared to synthetic Gastronorm containers).
- ☞ Food may only be inserted into the unit if placed in covered Gastronorm containers.
- ☞ Always seal Gastronorm containers filled with liquid food with a sealing lid.
- ✓ Unit preheated if necessary (with small amount of food)
- ✓ Food containers and food heated (containers not hotter than +100 °C)
- ✓ Gastronorm containers in good condition (e.g. edge not deformed or sharp)
- ✓ Gastronorm containers covered (containers with liquid food provided with sealing lids)

Warning!

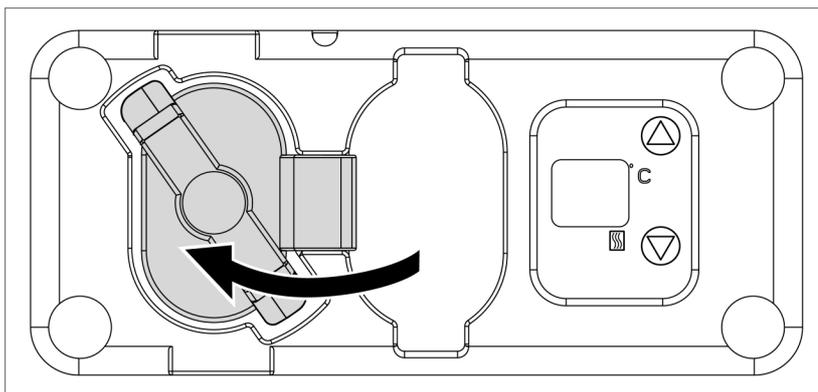
Hot convection heating!

The convection heating in the unit door becomes very hot during temperature maintenance and can cause burns.

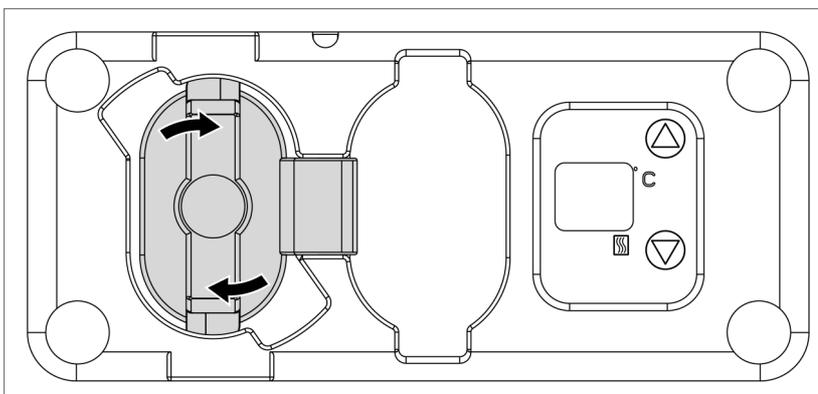
- When loading, avoid direct contact with the convection heating (inner side of unit door).
-
- If the unit is connected to the power supply, disconnect it.
 - Open the unit door.
 - ↳ Section "Opening a unit door" on page 15.
 - Place the Gastronorm containers horizontally into the unit without jamming them.
 - Lock unit door with locking lever.
 - ↳ Section "Closing the unit door" on page 16.
 - If necessary, reconnect the unit to the power supply after loading and continue heating.

Moving unit to a new location

- ☞ The unit may be heavy when loaded. To minimize danger to your health, always lift the unit with a second person. If possible, use suitable equipment to lift the unit.
- ☞ Up to two units may be stacked one on top of the other when changing location. Stacked units must always be secured against tipping while changing location.
- ☞ B.PRO can supply several different transport trolleys for the unit.
- ☞ If a portable support (e.g. transport trolley) is used to change the location of a unit or max. two stacked units, all possible measures must be taken to prevent risk to people and objects. This includes the following:
 - Do not exceed the maximum load capacity of the support
 - Secure the unit(s) to the portable support so that they cannot tip over
 - Always move the unit(s) with two people
 - Only surfaces with an incline of less than 10° may be crossed
 - Secure the unit(s) from rolling away accidentally
- ✓ Two people
- Pull out the mains plug.
- Unplug the unit plug.
- Store the mains cable in a suitable place and protect it from moisture.
- Close the locking cap of the unit socket outlet.



- Seal the locking cap watertight by turning the locking grip clockwise.



- Ensure that the unit door is closed tightly.

- Two units (max.) may be stacked one on top of the other if necessary; ensure that the skids of the top unit fit snugly into the stacking corners of the bottom unit.
- Secure the stacked units against tipping.
- Carefully move the unit(s) to the new location.

Keeping food hot

i The unit can keep the food hot for an extended period of time even if it is unplugged since the unit is well insulated. The unit fulfils Thermal Class A specifications as stipulated in BS EN 12571.

☞ Observe the corresponding regulations on foodstuffs and the properties of the food when keeping food hot. It is generally inadvisable to store food in the unit for a long time.

☞ A large amount of heat is lost if the unit is operated with the unit door open. Do not keep the unit door open if it is connected to the power supply.

Warning!

Hot steam!

The unit door does not seal completely when closed. Hot steam which escapes can cause scalding.

- Do not touch the area surrounding the unit door edge with bare hands.
- If the unit was disconnected from the power supply after preheating (e.g. for a location change), connect it to the power supply again.
 - ☞ Section "Connecting unit" on page 10.
- Hold unit door closed while keeping the food hot.
- Keep the food hot as long as desired.

Removing food

Warning!

Hot steam!

The unit door does not seal completely when closed. Hot steam which escapes can cause scalding. Hot steam may be emitted when the unit door is opened.

- Do not touch the area surrounding the unit door edge with bare hands.
- Always open the unit door carefully and maintain sufficient distance.

Warning!

Hot convection heating, hot unit interior and hot Gastronorm containers!

The convection heating, the unit interior and the Gastronorm containers or other objects contained in the unit become hot when in heat retention mode and can cause burns.

- Protection (e.g. with pot holders or protective gloves) must be used when handling hot objects.

 **Warning!**

Hot liquid food!

Hot liquid food can splash out from the edge of the Gastronorm container and cause scalding.

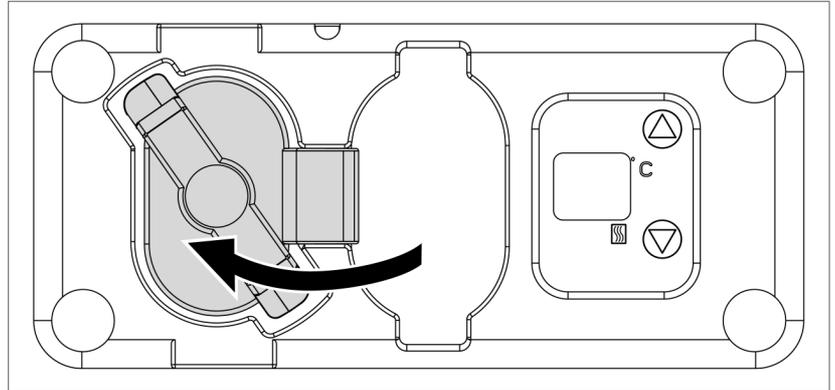
- ▶ Always seal the Gastronorm containers with sealing lids.
 - ▶ Keep Gastronorm containers in a horizontal position.
 - ▶ Prevent jerky movements of the Gastronorm containers.
-
- ▶ If the unit is connected to the power supply, disconnect it.
 - ▶ Open the unit door.
 - ▶ Remove the Gastronorm containers.
 - ▶ If only one part of the food was removed, close the unit door again and reconnect the unit to the mains if necessary.

 The unit must be cleaned thoroughly after use.

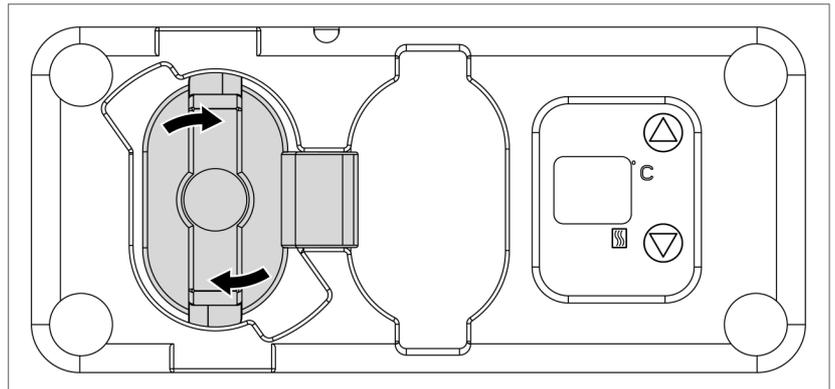
 Chapter "Cleaning and care" on page 26.

Shutting down

- Shutting unit down**
- Pull out the mains plug.
 - Unplug the unit plug.
 - Store the mains cable in a suitable place and protect it from moisture.
 - Seal the unit socket outlet with the sealing cap.



- Seal the locking cap watertight by turning the locking grip clockwise.



Troubleshooting

LED/temperature display does not light up

Cause	Measure
Surrounding area is too bright.	<ul style="list-style-type: none"> ■ Darken the area around the LED/temperature display. ■ If the problems persists, check other causes.
Mains plug and/or unit plug is not plugged in.	<ul style="list-style-type: none"> ■ Insert the mains plug and/or unit plug into the socket outlet/unit socket outlet.
Mains cable is damaged; e.g. a wire is broken (can also occur without external damage).	<ul style="list-style-type: none"> ■ Have the mains cable replaced by a facility authorised to carry out repairs. ↳ Chapter "Repairs" on page 30.
The client's on-site RCCB has been triggered.	<ul style="list-style-type: none"> ■ Switch RCCB. on again. ■ Do not switch too many units on at the same time.
Customer-supplied fuse (building fuse) is defective.	<ul style="list-style-type: none"> ■ Check customer-supplied fuse and replace it if necessary.
Unit electronic system or LED/temperature display is defective.	<ul style="list-style-type: none"> ■ Notify B.PRO service. ↳ Chapter "Repairs" on page 30.

Operation indicator LED illuminates, but temperature of food is not (sufficiently) maintained

B.PROTHERM 420 KBUH/620 KBUH

Cause	Measure
Food inserted too cold.	<ul style="list-style-type: none"> ■ Place only hot food in the unit.
Unit door not closed properly/Food not covered.	<ul style="list-style-type: none"> ■ Cover Gastronorm containers with Gastronorm container lids. ■ Close the unit properly with the unit door.
Unit electrical system faulty.	<ul style="list-style-type: none"> ■ Notify B.PRO service. ↳ Chapter "Repairs" on page 30.

Temperature display is lit, but food temperature is not (adequately) maintained

B.PROTHERM 420 KBRUH/620 KBRUH

Cause	Measure
Food inserted too cold.	<ul style="list-style-type: none"> ▶ Place only hot food in the unit.
Unit door not closed properly/Food not covered.	<ul style="list-style-type: none"> ▶ Cover Gastronorm containers with Gastronorm container lids. ▶ Close the unit properly with the unit door.
The setpoint temperature is set too low.	<ul style="list-style-type: none"> ▶ Raise setpoint temperature. <ul style="list-style-type: none"> ↳ Section "Setting the setpoint temperature" on page 14.
Unit electrical system faulty.	<ul style="list-style-type: none"> ▶ Notify B.PRO service. <ul style="list-style-type: none"> ↳ Chapter "Repairs" on page 30.

The unit has external damage

Cause	Measure
Damage during transport, change of location or other external influences.	<ul style="list-style-type: none"> ▶ Shut down unit. <ul style="list-style-type: none"> ↳ Section "Shutting down" on page 21. ▶ Secure the unit from being started up accidentally. ▶ Notify a centre authorised to carry out repairs. <ul style="list-style-type: none"> ↳ Chapter "Repairs" on page 30.

The empty unit increases in weight

Cause	Measure
Water intake due to external damage.	<ul style="list-style-type: none"> ▶ Shut down unit. <ul style="list-style-type: none"> ↳ Section "Shutting down" on page 21. ▶ Secure the unit from being started up accidentally. ▶ Notify a centre authorised to carry out repairs. <ul style="list-style-type: none"> ↳ Chapter "Repairs" on page 30.

Short Diagnosis of BPT 420/620 KB(R)UH from Version 2

Two-colour Power/Status LED

B.PROTHERM 420/620 KBUH

Flashing, green, 0.5 Hz:	Heating up	
Continuous, green	Temperature reached	

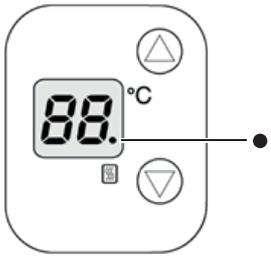
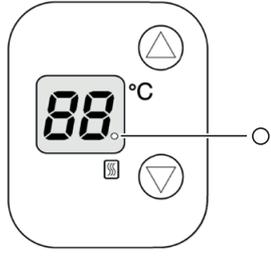
Error messages

Flashing, 2 sec. red, 2 sec. green	Heating short-circuit (Short-circuit in heating conductor of silicone matt)
Flashing, 1 sec. red, 2 sec. green	Sensor broken in PTC chain
Flashing, 1 sec. red, 1 sec. green	Sensor short-circuit in PTC chain
Continuous, red	Wrong inverter (no sine wave)
Flashing, 0.5 sec. red, 0.5 sec. off	Overvoltage
Flashing, 0.5 sec. red, 3.5 sec. off	Undervoltage

B.PROTHERM 420/620 KBRUH

Temperature display

Adjustment range:	0 to 90 °C
Display area	-9 °C to 99 °C
'HI' message:	> 99 °C
'LO' message:	< -9 °C
'FP' message	Full Power mode

●/○:	Heating active	
	Heating inactive	

Error messages

Code	Error	Cause	Measure
HS: (H5)	Heating short-circuit; power is switched off	Short-circuit in the PTC heating element; moisture may have entered the PTC heating element aluminium housing	<ul style="list-style-type: none"> ▶ Check that the heating element compound is leak-tight. ▶ Fit new heating element if necessary.
FB: (F6)	Sensor break	Defective temperature sensor, resistance curve outside tolerance	▶ Replace NTC sensor.
FS: (F5)	Sensor short-circuit	Temperature sensor input lines generate a short-circuit; resistance curve outside tolerance levels	▶ Replace NTC sensor
–	No display		▶ Check mains supply lines and unit fuse on controller electronics.
Uo	Overvoltage	>260 V	▶ Check mains voltage
Uu	Undervoltage	<200 V	▶ Check mains voltage

Cleaning and care

Cleaning frequency The unit must be thoroughly cleaned after each use.

Cleaning methods The required method for daily routine cleaning is wiping clean with a damp cloth. Do not use pointed or sharp objects when cleaning. Stubborn stains may be removed with a brush (synthetic or natural bristles). If necessary, the unit body (without the unit door!) may be cleaned in a dishwasher.

☞ The temperature in the dishwasher may not exceed +90 °C.

☞ Do not use steam jet units, high-pressure cleaners or similar devices.

☞ The unit may not be submerged in liquid (e.g. water).

Cleaning agent **Synthetic surfaces**

Caution!

Material damage!

Stainless steel cleaning and scouring agents scratch the surface. The following cleaning agents or cleaning agents with the following ingredients will also damage the surface:

- Ethanol, isopropyl alcohol or higher alcohols
- Acetone
- Benzene
- Turpentine
- Acetic ester

- Do not use stainless steel cleaning or scouring agents.
 - Never use cleaning agents containing solvents.
-

The following cleaning agents may be used:

- Commercially available cleaning agents in an aqueous solution
- Soft cleaning cloth
- B.PRO microfibre cleaning cloth (use with water only)

Stainless-steel surfaces

Caution!

Material damage!

The following substances may cause or advance corrosion if they come into contact with stainless steel:

- Concentrated acids, halogens, such as chlorides, bromides, iodides, and their salts, and spices containing cooking salt
- Salt acid vapours which may form when using industrial cleaners, for example
- Contact with other metal, such as steel or iron
- Contact with iron (e.g. steel wool, chips from wires or pipes, water containing ferrous particles).

Corrosion can also occur under layers of lime, grease, starch and protein due to a lack of air circulation.

- Avoid contact with concentrated acids, halogens and their salts, spices, foreign metal, iron or substances containing iron. Wipe with a cloth rinsed in clean water if necessary.
 - Do not damage the surface of stainless steel, especially not with other metals.
 - Remove lime, grease, starch and protein coatings by cleaning on a regular basis.
-

The following cleaning agents may be used:

- Commercially available cleaning agents in an aqueous solution
- Soft cleaning cloth
- B.PRO microfibre cleaning cloth (use with water only)

Cleaning agents for heavily stained stainless-steel surfaces:

- Commercially available stainless steel cleaning agents, e.g. DeepClean Stainless Steel
 - Surfaces made of stainless steel must be kept clean, dry and open to the air at all times.
-

Cleaning unit

Warning!

Water penetrating into the convection heating!

When the unit is cleaned in a dishwasher with the unit door attached, water can penetrate into the convection heating. In this case, a risk of electric shock is present when the unit is connected to the power supply again. In addition, the convection heating can be damaged.

Caution!

Danger of slipping!

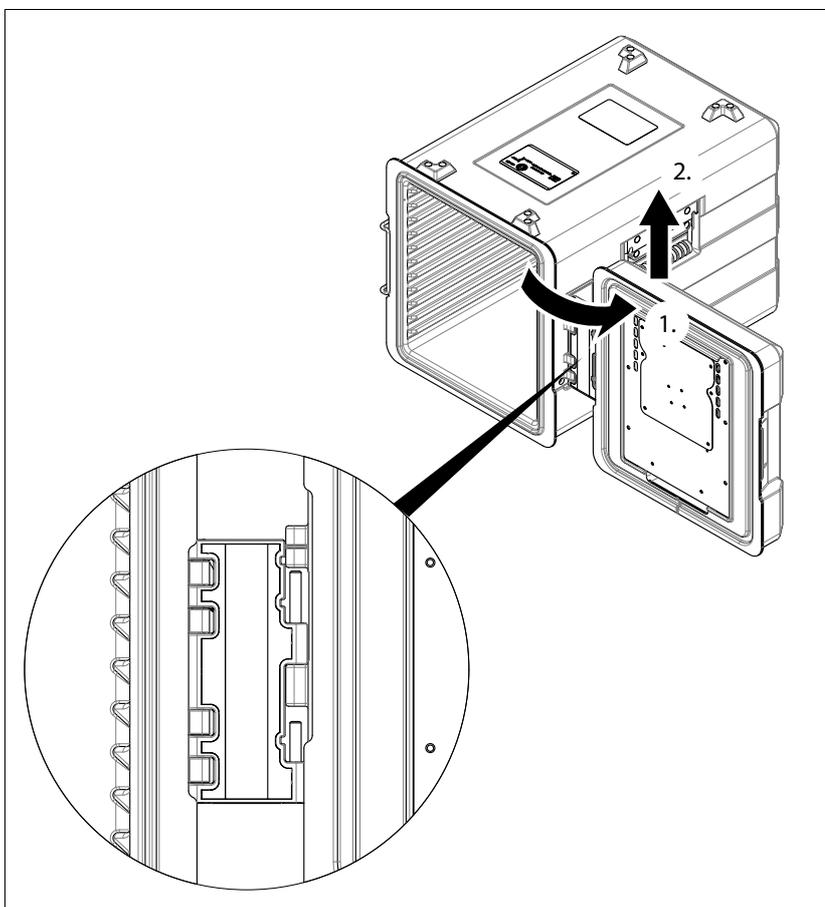
There is a danger of slipping if cleaning water runs out onto the floor during or after cleaning.

- Mop up all water which has leaked onto the floor.
 - Pull out the mains plug.
 - Unplug the unit plug.
 - Store the mains cable in a suitable place and protect it from moisture.
-

- ▶ Seal the unit socket outlet watertight with the sealing cap.
↳ Chapter "Shutting down" on page 21.
- ▶ Detach the unit door as needed or for cleaning the unit body in a dishwasher.
↳ Section "Detaching the unit door" on page 28.
- ▶ Ensure that the unit interior and convection heating have cooled down.
- ▶ Clean unit with cleaning methods and cleaning agents described above.
- ▶ Rub unit dry after cleaning.

Detaching the unit door

- ☞ The hinged door can be taken off the hinge for cleaning purposes. As a general rule, the hinged door must be detached if the unit body is to be cleaned in a dishwasher.
- ▶ Open the hinged door (1.). When doing so, ensure that the hinge element and the unit door are positioned parallel to one another (see magnified section).
- ▶ Push hinged door upward (2.) and detach from hinge.



Maintenance

Having unit regularly maintained

- ☞ B.PRO recommends regular maintenance of the unit by appropriately trained professionals. Regular maintenance prevents failure of the unit, extends its operating life and contributes to general value retention.
- Have unit maintained by suitably trained professionals regularly.

Treating the sealing cap on the unit socket outlet with a rubber-care agent

- To increase the operating life of the rubber seal on the sealing cap of the unit socket outlet, treat the rubber seal regularly (monthly) with a commercial rubber-care agent.

Having periodical electrical safety inspection carried out

- Have a professional electrician perform a periodical electrical safety inspection as per the DIN VDE 0701-0702 series of standards at least once every six months.

Checking connection cable and mains plug

- Check the connection cable and mains plug for mechanical damage and signs of excessive deterioration as per BGV A 3 or corresponding national regulations at least once every six months.

Repairs

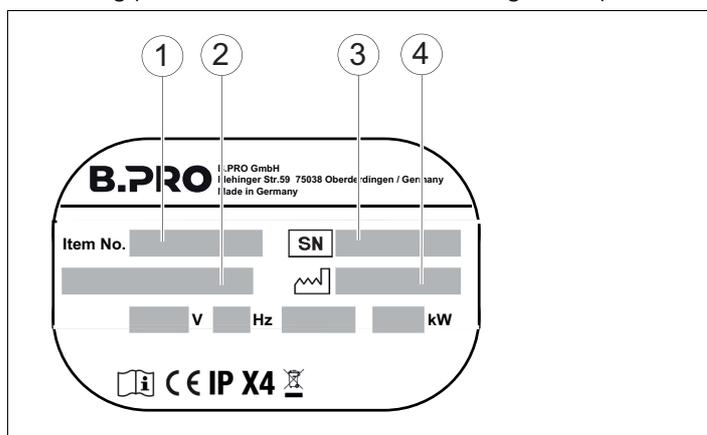
Authorised persons  Only personnel trained by B.PRO may repair the unit. Notify B.PRO Service in the event of damage.

Fault description In addition to an exact description of the defect, B.PRO Service requires the following information from the rating plate:

- Article number
- Date of manufacture
- Serial number
- Model

The unit features 2 rating plates:

One rating plate is on the convection heating cover plate



- (1) Article number
- (2) Model description
- (3) Serial number
- (4) Date of manufacture

The other rating plate (without electrical specifications) is on the lower surface of the unit body.

Spare parts The following information is required when ordering spare parts:

- Designation of spare part
 - Article number
 - Date of manufacture
 - Quantity
-  See the Service Information System on the Internet (www.bpro-solutions.com)

Address B.PRO GmbH
Flehinger Straße 59
75038 Oberderdingen
GERMANY
Phone +49 (0)7045 44 - 81416
Fax +49 (0)7045 44 - 81508
Email service@bpro-solutions.com
Internet www.bpro-solutions.com

Disposal

Disposing of unit



i When disposing of old electrical or electronic appliances via regular municipal waste, a danger for the environment and for health may result due to specific contents of the appliances.

The unit should therefore never be disposed of via normal municipal waste disposal but must be separated and disposed of by the waste collection for electrical appliances (e.g. a specialised disposal plant).

The unit is marked with this symbol indicating it requires special disposal as per DIN EN 50419, Marking of electrical and electronic devices in accordance with Article 15(2) of Directive 2012/19/EC (WEEE). In addition, further possible national regulations concerning disposal must be regarded.

- Render the unit unusable prior to disposal (e.g. by cutting off the mains plug).
- Turn the unit over to a recycling centre or electrical refuse collection site.

☞ This product may not be disposed of with other commercial waste.

☞ Further information on disposal is available from the dealer or from B.PRO Service.

☞ Section "Address" on page 30.

Technical data

i A unit subject to these operating instructions may also have differing technical data (electrical and refrigeration-related specifications, dimensions), depending on the model. The mandatory information is provided on the rating plate or in the specific order documents and/or on drawings.

General data Dimensions, weight and capacities

Model	Dimensions in mm (Length x Width x Height)	Approx. empty weight in kg	Capacity (GN 1/1 containers)
420 KBUH/ 420 KBRUH	692 x 445 x 470	16	Two containers with a depth of 150 mm (example)
620 KBUH/ 620 KBRUH	692 x 440 x 690	19.5	Two containers with a depth of 200 mm (example)

Maximum load

Model	Maximum load in kg
420 KBUH/ 420 KBRUH	50
620 KBUH/ 620 KBRUH	70

Temperature in unit interior

B.PROTHERM 420 KBUH/620 KBUH

Approx. +90 °C

B.PROTHERM 420 KBRUH/620 KBRUH

Can be set between approx. +40 °C and +85 °C, in 1-degree increments
About +90 °C in "Full Power" mode (FP)

Thermal class

A in accordance with DIN EN 12571

Electrical data Connected loads

Voltage: 220 to 240 V AC, 50 to 60 Hz
(purely sinusoidal AC)

Output: 200 Watt

The pickup power of the unit while cold is 800 Watts.

Protection type

IP X4 (do not use steam jet units, high-pressure cleaners or similar cleaning devices).

Environment Ambient conditions – operation

Temperature: +15 °C to +38 °C
 Relative humidity: without condensation

Ambient conditions – storage, transport

Temperature: -10 °C to +40 °C
 Relative humidity: without condensation

Emissions

The workplace-specific noise level of the unit is less than 70 dB(A).

Materials

Unit body: Polypropylene
 Insulation: PUR foam

Ordering information

B.PROTHERM 420 KBUH	Article number:	572 534
B.PROTHERM 420 KBRUH	Article number:	572 535
B.PROTHERM 620 KBUH	Article number:	572 536
B.PROTHERM 620 KBRUH	Article number:	572 537
Operating instructions	Document number:	154 248

Accessories

Menu card set	Article numbers:	 B.PRO price list
Gastronorm containers	Article numbers:	 B.PRO price list
Slide-in frame	Article numbers:	564 352
Support crossbars	Article numbers:	 B.PRO price list
Transport trolleys	Article numbers:	 B.PRO price list
B.PRO microfibre cleaning cloth	Article numbers:	126 999

Standards

DIN EN 12571: Tools and objects which come into contact with food – Transport means for prepared food in food containers – Thermal and hygienic requirements and test procedures.

DIN 18864: Equipment for commercial kitchens – Thermal containers for food transport.

DIN EN 60335-1: Household and similar electrical appliances – Safety – Part 1: General requirements.

DIN EN 60335-2-49: Household and similar electrical appliances - Safety – Part 2-49: Special requirements for electrical units for keeping food and dishes hot and for commercial use.

DIN EN 60529: Degrees of protection provided by housing (IP code).

DGUV regulation 110-003: Working in kitchens.

BGV A3 (VBG 4): Accident prevention regulation: electrical facilities and devices.



CE marking

The unit conforms to the following directives:

- Directive 2014/30/EU of the European Parliament and of the Council on the harmonisation of the laws of the Member States relating to electromagnetic compatibility
- Directive 2014/35/EU of the European Parliament and of the Council on the harmonisation of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits
- Directive 2011/65/EU of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment

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