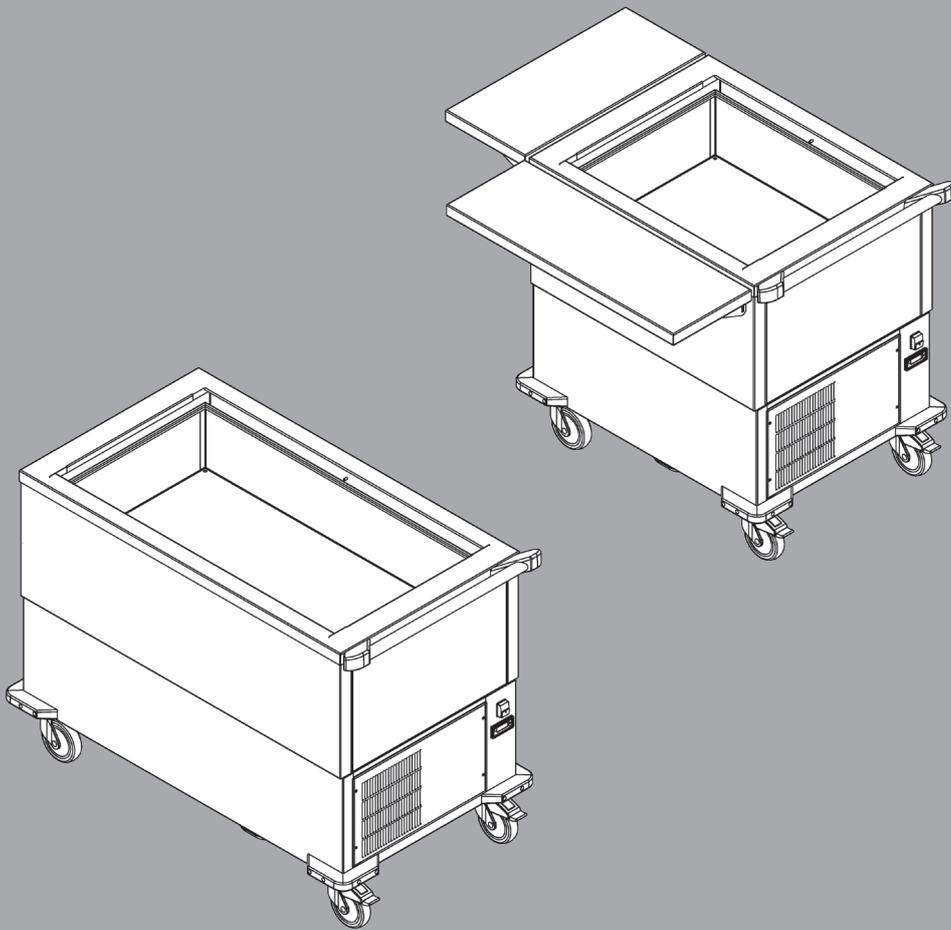


**B.PRO**  
CATERING SOLUTIONS



# FOOD SERVING TROLLEY SAW 2-UK/SAW 3-UK

**Translation of the original operating instructions.**

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**Technical changes** Subject to modifications due to technical improvements.

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## General information

**Product documentation** This is the translation of the original operating instructions.  
Target group: operating personnel, kitchen directors.

**Typographical conventions**

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

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### Unit model XYZ

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

---

### Warnings



#### Signal word!

#### Type and source of danger

Possible consequences of non-compliance with warnings.

- Measures to avoid hazards and the consequences thereof.
- 

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

**Caution** warns of possible minor bodily injury or damage to property.

**Warning** warns of possible serious bodily injury.

**Danger** warns of possible highly severe/fatal bodily injury.

## About this product

**Scope of application** The B.PRO SAW 2–UK/3–UK food serving trolley is designed as a mobile device for the following applications:

- Keeping food cold
- Serving refrigerated food, food distribution

The B.PRO SAW 2–UK/3–UK food serving trolley may only be used for keeping food cool and serving food in containers.

The unit 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).

The following applications are not permitted:

- Cooling down warm dishes
- Permanent cooling of food (refrigerator function)
- Cooling rooms
- Transporting persons with or on the unit or its attachments
- Use as a substitute for a ladder, climbing aid or climbing frame
- Transport or storage of hazardous or toxic substances/liquids.

### **Conditions of use** **Environment**

The unit may be used wherever the ambient temperature is between +15 °C and +32 °C and at normal humidity (without condensation) in closed rooms or in roofed areas where it will not be exposed to the weather.

The maximum ambient temperature at which the unit reaches the selected setpoint temperature when used correctly is +32 °C (measured at the geometrical centre of the cooling tray).

The unit has been developed for usage at 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.PRO SAW 2–UK/3–UK food serving trolley is equipped with a stainless-steel cooling tray. The cooling tray is located above the refrigeration system in the "unit tray" and can be removed for cleaning purposes, for example.

The unit body is double-walled and insulated. The insulation is CFC-free.

The B.PRO Food Serving Trolley SAW 2–UK/3–UK features active convection cooling, which uses a fan to circulate cooled air.

The unit tray features a drain for condensation water, which is collected in a condensation catch tray.

**Handling and operation**

The refrigeration parameters on the B.PRO Food Serving Trolley SAW 2–UK/3–UK can be set using the temperature control with a digital temperature display.

LEDs on the control panel of the temperature control show the unit's current operating mode.

The unit has an on/off switch above the temperature control.

The cooling range is between +2 °C and +15 °C: The temperature is reached at the geometric centre of the cooling tray.

Depending on the model, the unit can be loaded with up to 3 GN 1/1 Gastronorm containers with a depth of maximum 200 mm.

As an alternative to loading with Gastronorm containers, the unit can also be loaded with covered bowls.

A safety push handle allows the unit to be moved easily.

Stable corner guards protect the unit from damage.

**Cleaning and defrosting**

The B.PRO Food Serving Trolley SAW 2–UK/3–UK is equipped with an automatic defroster.

The condensation water catch tray must be emptied by hand.

The cooling tray can be removed for thorough cleaning.

The evaporator located beneath the cooling tray can also be folded upwards.

**Standard model** The B.PRO Food Serving Trolley SAW 2–UK/3–UK is equipped as follows (standard):

- 2 synthetic fixed castors and 2 steering castors with castor brakes
- Corner guards on unit corners

**Options and accessories** The B.PRO Food Serving Trolley SAW 2–UK/3–UK is available with the following optional equipment:

- Fold-down shelf (possible on both long sides and the short side opposite the push handle)
- 4 steering castors, 2 of which have castor brakes
- Castor model available in different materials and diameters
- All-round bumper rail
- Gastronorm lid support on the short unit side opposite the push handle

## Functional principle

**Description** The B.PRO Food Serving Trolley SAW 2–UK/3–UK is equipped with active convection cooling.

**Convection cooling operates based on the following principle:**

The evaporator in the cooling system beneath the cooling tray extracts heat from the ambient air.

A fan causes the cooled air to circulate around the cooling tray.

This cools the walls of the cooling tray.

Part of the circulating air flows into the cooling tray and contributes to cooling the tray and what it contains.

This functional principle ensures:

- The cooling tray cools down rapidly
- A lower cooling temperature (+2 °C) than with active contact cooling
- Uniform temperature distribution
- Food in the cooling tray should be covered if it remains there for a longer period (risk of drying out)

## Safety

### General information



These operating instructions must be read carefully prior to commissioning. The owner is responsible for ensuring that all users have read these instructions before operating the unit. Store these operating instructions in a location which is always accessible to operating personnel.

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 residual risks.

### Safety precautions

Thoroughly read and observe the safety precautions in this chapter.

The owner 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.

### Cleaning and maintenance

Disconnect the unit from the power supply before cleaning, maintenance or parts replacement. Keep the mains and/or unit plug in a suitable place where it is protected from moisture, damage and dirt while carrying out work.

### About this product

#### Scope of application

The unit may only be used for the applications specified.

The operator is responsible for ensuring that the unit is used properly and only for the application specified.

#### Conditions of use

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

Make sure that users of the unit are instructed in its operation and have understood these operating instructions.

Do not use the unit outdoors during a thunderstorm.

Protect the unit from direct sunlight.

#### Serious injury and damage caused by exploding, flying parts and deflagration gases

If explosive materials or containers are stored in the unit and the unit is put into operation, this may cause an explosion and subsequent personal injury and property damage.

- Do not store any explosive materials, such as aerosols with flammable propellant, in this unit.

**Warning signs**

The following optional warning signs are attached to the unit:

Warning sign	Meaning – Mounting position
	“Warning of flammable substances” (Class A3 refrigerant) as per EN ISO 7010 Mounting position on unit body
	“Danger! No naked flames; fire, open sources of ignition and smoking prohibited!” as per EN ISO 7010 Mounting position on unit body
	“Pressurised refrigeration unit” as per ISO 7000 Mounting position on refrigeration unit

Replace any illegible, damaged or missing warning signs immediately.

**Transport Upright transport position**

Transport the unit in an upright position only.

If the unit was not transported upright, wait 2 hours before commissioning.

The unit must not be operated during transport.

**Transport with a truck or delivery vehicle**

The unit may only be transported in a truck or delivery vehicle which features a loading ramp.

The loading ramp must not exceed an angle of inclination of 10°.

The unit is not properly secured for transport if only the castor brakes have been applied.

Secure the unit on all four sides to prevent it from shifting.

Secure the unit against vertical movement during transport.

Use padded locking bars.

**Commissioning Commissioning after storage****Fire hazard**

Pull off any protective film when unpacking the unit, as this presents a fire danger.

**Location Electric shock due to electrical charge, danger of short-circuit**

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.

Steam can cause moisture condensation on the unit.

When the unit is connected to the power, there is a danger of the resulting moisture film causing a short-circuit or an electric shock.

- Only operate the unit once it has reached room temperature.
- The unit may only be operated on a level, firm surface.

- Never operate the unit next to equipment which emits large amounts of steam, such as a dishwasher.
- Set up/operate the unit in a well-ventilated environment only.

Blocked ventilation slits can cause the refrigeration unit to overheat and fail.

Keep the ventilation slits clear. Ventilation slits must be at least 10 cm from a wall when the refrigeration unit is switched on.

The refrigerant propane (R290) is highly flammable and explosive (refrigerant group A3 according to DIN EN 378-2). In the event of a leak, an ignitable gas-air mixture can be produced which can trigger an explosive reaction if the critical mixing ratio is reached and there is a suitable source of ignition source.

#### **Mains connection**

Make sure that the mains voltage and frequency on the rating plate correspond with those for the mains socket outlet.

Only connect the unit to a socket outlet that is protected with a fault-current protective device (residual-current circuit breaker). Each phase must be protected with max. 16 A.

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

The mains plug is only to be plugged in or unplugged when the unit is switched off, as otherwise the unit electrical system, software and/or mains socket outlet can be damaged.

Only unplug the mains plug by pulling on the mains plug housing.

### **Handling and operation**

#### **General information**

Make sure that users are aware of the hazards that the unit presents and that they are able to assess them.

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

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

If a fault occurs that you cannot rectify immediately, you must no longer operate the unit and, consequently, it must be secured against accidental use.

Disconnect the unit completely from the power supply.

↳ Chapter “Shutting unit down” on page 34

Also take the unit out of operation and secure it against accidental use if it becomes damaged.

Have an authorised service point perform repairs immediately.

↳ Chapter “Repairs” on page 16

The unit can cause injury and property damage if allowed to roll away accidentally.

Always apply the castor brakes to prevent the unit from rolling away.

Always keep lids on Gastronorm containers containing food.

Always cover food on plates with cloches.

The quality of the food in the unit may be impaired if a power failure, unit malfunction or other interruptions occur during storage or regeneration.

When keeping food cool, only open the unit briefly to remove food.

❗ Only have authorised, expert professionals trained to handle propane refrigerants (R290) carry out work on the refrigeration system.

Do not operate any electrical appliances in the usable space of the unit.

**Fire hazard**

Fire hazard, in particular through naked flames, electric or static sparks generated by static charge, and hot surfaces.

- Avoid naked flames in the usable space or immediate vicinity of the unit.
- Avoid hot surfaces.
- In the event of static charge, appropriate countermeasures must be taken (e.g. use of personal protective equipment, antistatic castors or an antistatic conveyor).

**Possible impairment of food quality**

The quality of the food located in the unit may be impaired by a power failure, unit malfunctions or other interruptions during storage.

- Check whether the food quality has been impaired after the core temperature has increased.
- Dispose of food if necessary.

**Load-bearing capacities**

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**Unit model with folding shelf/shelves**

The shelves are designed to hold dishes and/or trays. Heavy objects, such as full Gastronorm containers, should not be placed on them.

The shelf has a maximum surface load of 25 kg.

It is not permitted to sit on the shelves.

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**Hygiene regulations**

The specifications of Regulation (EC) no. 852/2004 and the applicable national hygiene regulations must be complied with when refrigerating food.

**Castor brakes**

The unit can cause injury and property damage if allowed to roll away accidentally. Always apply the castor brakes to prevent the unit from rolling away.

**Change of location**

Before transporting the unit, take suitable measures to ensure that it can be transported safely.

The unit location must also meet the requirements specified in directives, regulations, other rules imposed by the German Employers Liability Insurance Association and any other applicable national provisions in their current version in the countries of use.

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**Unit model with folding shelf/shelves**

Fold down the shelf/shelves before changing location.

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Objects can slide off the unit top or the unit can tip over when pushed. Remove any objects from the unit top before changing its location. Gastronorm containers or dishes may fall out of the unit when it is pushed. Hold unit door closed while changing its location.

With the door closed, the unit can be tilted to an angle of 10° while standing still. Only sloped surfaces with an incline of <10° may be crossed. If the unit is standing on a sloped surface, it must be secured by extra means, such as wheel chocks, in addition to applying the castor brakes to prevent it from rolling away accidentally.

Avoid subjecting the castors to excessive load to minimise the risk of damage to the castors:

- Do not move the unit when the castor brakes are locked
- Avoid impacts
- Do not traverse bumps or steps
- Do not traverse uneven floors

The unit should be pushed only, never pulled.

When moving the unit, ensure that persons or objects in the path of the unit are not overlooked. If the person pushing the banquet trolley cannot see over it, a second person must walk in front of the unit when it is being pushed to allow the unit to be moved safely.

If you push with just one hand, this may prevent you from applying the brakes quickly enough if the unit is heavy. Always push the unit with two hands on the push handle rail.

Two people (one at each side wall of the unit) are required to move the unit over ramps or recesses. Always bring the unit to its new location at a sensible speed (no faster than 3 km/h – equivalent to a slow walking pace). The person who moves the unit to its new position must always be capable of braking the unit in an emergency, even if loaded.

An additional person is always needed for safety reasons when the field of vision is limited, during complicated transport manoeuvres and while traversing ramps, hollows and inclined surfaces.

**Shutting down** Unplug the mains plug only with the unit switched off, otherwise the unit electrical system and the mains socket outlet can be damaged.

Pull out the mains plug to disconnect the unit from the power supply.

Only unplug the mains plug by the mains plug housing.

Unplug the mains plug and store it in the mains plug retainer on the unit.

**Cleaning and care** **Mains plug**

Disconnect the unit from the power supply before cleaning or maintenance work or replacing parts. During these tasks, store the mains and/or unit plug in a suitable, dry place and protect against moisture, damage and dirt (insert mains plug in mains plug holder).

**Electric shock due to short-circuit**

Water penetrating into the unit can cause a short-circuit.

**Hygiene**

You must comply with the specifications in Regulation (EC) no. 852/2004 and your national hygiene regulations.

The inside unit body is optionally available in hygiene type H1.

**Cleaning and defrosting frequencies**

Clean the unit thoroughly after each use.

Empty the condensation water catch tray daily in order to avoid overflowing and the related danger of slipping or damage to the floor.

**Cleaning methods**

Use approved cleaning methods only.

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

**Cleaning agents**

Use only approved cleaning agents.

**Cleaning agents for synthetic parts**

Do not use scouring agents. Scouring agents scratch surfaces.

Do not use the following cleaning agents or cleaning agents containing the following substances (material damage!):

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

**Cleaning water freezing inside unit**

You must switch off the refrigeration system at least 30 minutes before starting to clean to prevent cleaning water from freezing inside the unit.

**Cleaning and maintenance**

Disconnect the unit from the power supply before cleaning or maintenance work or replacing parts. Keep the mains and/or unit plug in a suitable place where it is protected from moisture, damage and dirt while carrying out work.

**Cleaning water**

A danger of slipping exists if cleaning water runs out of the unit during or after cleaning.

Thoroughly dry the unit after cleaning. Remove cleaning water from the base of the unit interior. Completely wipe up any water which runs out of the unit.

**Sharp evaporator fins**

The evaporator fins have sharp edges. Be careful when working beneath the evaporator in its raised position as you may cut yourself. Always wear protective gloves when cleaning the unit tray beneath the evaporator.

**Removing corrosion spots**

The evaporator fins are made of aluminium. Under no circumstances may aluminium components come into contact with acids (e.g. by being splashed with acid) or even be wiped with acids since acids can react very strongly with aluminium. Health risk due to boiling acid and chemical reaction products is present. Material damage can occur due to the decomposition of the aluminium.

**Personal protective equipment.**

Wear personal protective equipment such as safety footwear, protective gloves and safety glasses to protect against the following hazards:

- Hot surfaces
- Hot steam and liquids
- Danger of slipping
- Sparks caused by static charge

**Maintenance****Castor brakes**

If the effectiveness of the brakes is not sufficient, have the defective castor replaced immediately by one of the following:

- In-house, by B.PRO-trained professionals
- External, B.PRO-trained customer service
- B.PRO Service

**Periodical electrical safety inspection**

Have a qualified electrician carry out a periodical electrical safety inspection at least once every six months in accordance with the DIN VDE 0701 and DIN VDE 0702 series of standards.

**Connection cable and mains plug**

Check the connection cable and mains plug for mechanical damage and signs of excessive deterioration at least once every six months in accordance with DGUV Regulation 3 (formerly BGV A3) or equivalent national regulations.

**Repairs****Authorised persons**

The unit may only be repaired by the following service points:

- In-house, by B.PRO-trained professionals
- External, B.PRO-trained customer service
- For repairs to the refrigeration system: Specialist refrigeration company
- B.PRO Service

ⓘ Repairs during the warranty period must be reported to B.PRO and approved by B.PRO before being carried out. The warranty will be invalidated if the unit is repaired by anyone else or without being commissioned.

ⓘ Work on the refrigeration system is only to be executed by authorised, competent professionals who have been trained in the use of the refrigerant propane (R290)!

The refrigeration circuit may only be filled/refilled with propane (R290).

Wear personal protective equipment (e.g. safety footwear, protective gloves, protective eyewear, etc.) to counteract static sparks generated by static charge.

If components through which refrigerant flows are defective, B.PRO recommends replacing the entire refrigeration unit.

**Standards and guidelines** Observe the applicable standards, guidelines and safety regulations. The owner 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.

## Additional information for use in daycare facility and school catering

**Scope of application** This additional information describes the assessable, additional residual risks as a result of the access of children/young people to the product.

### General information and special dangers

**Application** The unit may only be used for the scope of application specified in these operating instructions.

**Duty to supervise** The unit must NOT be moved or operated without supervision. The duty of supervision is essentially based on the applicable laws and regulations adopted by relevant national authorities, such as the legislator, the employer's liability insurance associations, regulations on a state or municipal level and/or other authorities.

**Power supply** Usage of an electrically operated unit increases the supervisor's duty to provide supervision. Do NOT operate the unit without supervision.

### B.PRO recommends:

Operate the unit on socket outlets which can be disconnected at a main or central switch. Make sure that this main or central switch is installed out of the reach of children. Avoid subjecting the mains connection cable to tensile strength. This same applies when using a helix cord.

**Improper use as a toy** Do NOT climb on the unit. If the unit is not handled correctly or is misused as described above, the unit may tip over, causing a hazard or injury.

**Improper use as a vehicle** The unit is very heavy and has a high potential momentum when moving. The unit must NOT be used as a vehicle or a means of transport. Do not lie under the unit. If the unit is misused as described above, it may cause injury as people can be run over or crushed, for example.

**Improper use as a storage space** The unit must NOT be used as a storage space for objects and/or living beings.

**Do no operate any electrical appliances in the usable space of the B.PRO food serving trolley.**

**Castor brakes** The castor brakes must be applied as soon as the unit is positioned at its intended location following a change of location, or if a change of location is necessary. The castor brakes have openings that are part of their technical design. If the castor brakes are applied without supervision, these openings can lead to crushing of extremities. Unintentionally releasing a castor brake may also set the unit in motion.

**Unit door hinges** The unit has door hinges in which extremities (such as fingers) may be trapped and crushed.

**Crush hazard for extremities**

There is a risk of crushing extremities when opening and closing the unit door.

- Make sure that extremities are kept away from the door opening or door hinges when opening and closing the unit door.

## Transport

### Checking for/reporting transport damage

- ▶ The unit must be checked for damage incurred during transport immediately after delivery (visual inspection).
- ▶ 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).
- ▶ Retain the unit and notify B.PRO of the damage, enclosing 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

The scope of delivery contains the following as standard:

- Unit/module
- Operating instructions
- Instructions for temperature controller (in the unit interior; behind the cover with the cooling slits on the operator side)

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 designated opening points. Do not tear or cut open.
- ▶ Check the scope of delivery.
- ▶ Remove any protective film on the inside and outside the unit.

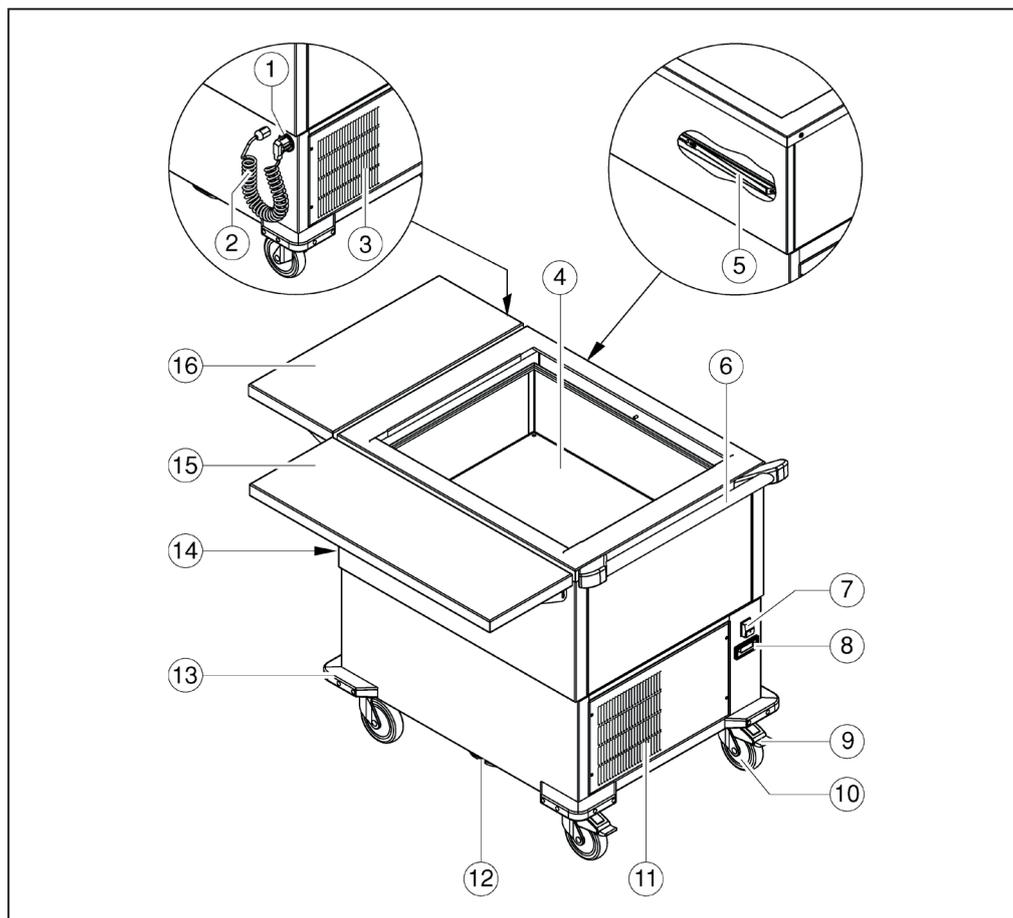
### Disposing of packaging material

Packaging materials are recyclable.

- ▶ Recycle packaging materials in a proper, environmentally responsible manner as per applicable statutory requirements.

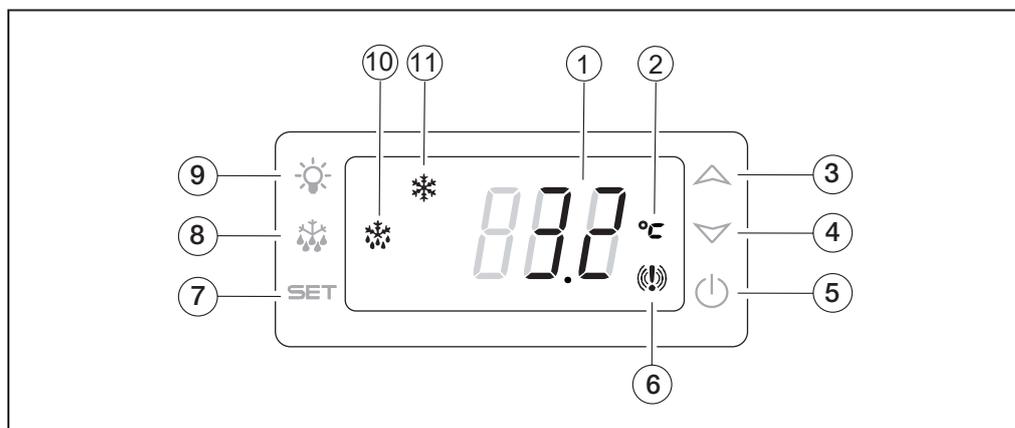
## Overview

### Unit



- (1) Mains plug retainer
- (2) Mains cable with mains plug
- (3) Cooling slits for the refrigeration unit
- (4) Cooling tray (removable) below the cooling tray: Evaporator
- (5) Locking bar for raised evaporator
- (6) Push handle
- (7) On/Off switch
- (8) Temperature control
- (9) Locking brake
- (10) Steering castor
- (11) Cooling slits for refrigeration unit with refrigeration unit behind
- (12) Under the unit base: condensation water drain and condensation water catch tray
- (13) Corner guard
- (14) Gastronorm lid support (optional)
- (15) Fold-down shelf – short side (optional)
- (16) Fold-down shelf – long side (optional)

## Temperature control



- |  |  |
|--|--|
| (1) Temperature display:                   | actual temperature in the unit, setpoint temperature, maximum/ minimum temperatures for temperature undershoot/overshoot, duration of a temperature undershoot/overshoot, information messages |
| (2) Display of unit of measure:            | unit of measure; flashes during the programming phase  |
| (3) "UP" button:                           | Increase parameter values  |
| (4) "DOWN" button:                         | Decrease parameter values  |
| (5) "Switch refrigeration on/off" button:  | not activated  |
| (6) "Alarm" LED signal:                    | lights up if temperature alarm triggered   |
| (7) "SET" button:                          | display or change the setpoint temperature   |
| (8) "Manual defrost" button:               | starts manual defrosting   |
| (9) "Light" button:                        | not activated  |
| (10) "Defrosting" operation indicator LED: | lights up: Defrosting started; flashes: water drainage time after defrosting is running  |
| (11) "Cooling" operation indicator LED:    | lights up: Cooling switched on; flashes: refrigeration unit in stand-by mode   |

## Commissioning

### Prerequisites for operation

- ✓ Unit has reached room temperature and is dry
- ✓ No faults detected, no visible damage to unit
- ✓ No person or animal in the unit interior
- ✓ Castor brakes are locked
- ✓ Protective films in interior and exterior have been removed
- ✓ Unit installed and stable

### Initial start-up

#### Checking setpoint temperature of cooling tray

- ① The setpoint temperature to which the unit adjusts the temperature is set to +7 °C in the factory.
- Change the setpoint temperature if necessary.
  - ↳ Chapter “Setting the setpoint temperature” on page 25

### Connecting the unit

#### Positioning unit

- Make sure that the condensation water catch tray is inserted on the underside of the unit.
- To ensure the best possible refrigeration of the food, note the following points when selecting where to place the unit:
  - Position the unit in a location as far away as possible from heat sources, such as heating, ovens or solar irradiation
  - Do not place the unit next to equipment which emits large amounts of steam, such as a dishwasher
  - Ensure unit is adequately protected against draught in its parked position
- Ensure that the refrigeration unit ventilation slits are not blocked by any objects (clear air outlet). Ventilation slits must be at least 10 cm from a wall when the refrigeration unit is switched on.
- Move the unit into its designated location and lock the castor brakes.
  - ↳ Chapter “Moving the unit to a new location” on page 31
- Before commissioning, make sure that the cooling tray is in a perfectly hygiene condition.

#### Plugging the unit into a socket outlet

- ✓ The unit is switched off
- Connect the mains plug to the socket outlet.



### Danger!

#### Fire hazard

Fire hazard, in particular through naked flames, electric or static sparks generated by static charge, and hot surfaces.

- Avoid naked flames in the usable space or immediate vicinity of the unit.
  - Avoid hot surfaces.
  - In the event of static charge, appropriate countermeasures must be taken (e.g. use of personal protective equipment, antistatic castors or an antistatic conveyor).
-

**Caution!****Damage to the unit electrical system**

The unit electrical system may suffer damage if the unit is not designed for the available mains voltage or frequency.

- Before connecting, make sure that the mains voltage and frequency on the rating plate correspond with those for the mains socket outlet.
- 

- Clean the unit after the initial start-up.  
↳ Chapter "Cleaning and care" on page 14
-

## Handling and operation

### Switching cooling on and off

The temperature controller will only function if cooling is activated.

The "Refrigeration unit" operation indicator LED is lit while the refrigeration unit is in operation. As soon as the set setpoint temperature is reached, the refrigeration unit switches off until the actual temperature has risen by a pre-set amount. The "Refrigeration unit" operation indicator LED goes out during this time.

The evaporator fan circulates the air in the unit interior and in the coolant evaporator.

The evaporator fan starts to run once cooling is switched on.

### Switching on cooling

- ✓ Unit connected to a socket outlet
- ▶ Switch on the "Cooling" on/off switch.
  - The operation indicator LED on the "Cooling" switch lights up.
  - "---" appears briefly on the temperature control display.
  - The actual temperature in the cooling tray is then displayed.
  - The temperature in the cooling tray is lowered to the set setpoint temperature.

### Switching off refrigeration

- ▶ Turn off the "Cooling" on/off switch.
  - The operation indicator LED on the "Cooling" on/off switch goes out.

### Setting the setpoint temperature

When the cooling mode is switched on, the actual temperature at the assigned cooling point is shown on the temperature controller display.

If the temperature is set too low, this will cause the refrigeration unit to run permanently (as will also happen when the ambient temperature is too high).

Possible consequences:

- Drying out of food
- Increased formation of ice on the evaporator or cooling tray
- More frequent defrosting necessary
- Increased energy consumption

### Displaying the setpoint temperature

- ✓ Unit connected to a socket outlet
- ✓ Display shows the actual temperature

## SET

- ▶ Press the "SET" button briefly.
  - Setpoint temperature is displayed. The actual temperature at the assigned cooling point will appear on the display after about 5 seconds or if the "SET" button is pressed again briefly.

### Changing the setpoint temperature

- ✓ Unit connected to a socket outlet
- ✓ Display shows the actual temperature

**SET**

- ▶ Keep the "SET" button pressed for at least 2 seconds.  
The setpoint temperature is displayed. The °C display flashes.
- ▶ Use the "UP" button to increase the setpoint temperature.  
– or –  
Use the "DOWN" button to reduce the setpoint temperature.

The temperature setting will change continuously if you press and hold down the "UP" or "DOWN" button. The rate of change increases if the "UP" or "DOWN" button is pressed for a longer time interval.

**SET**

- ▶ Press the "SET" button briefly to save the changed setpoint temperature.  
– or –  
Wait about 15 seconds.  
The setpoint temperature is saved.  
The actual temperature at the assigned cooling point is displayed.

#### Locking/unlocking keypad

##### Locking keypad

The keypad lock prevents unauthorised access to temperature control, e.g. to change the setpoint temperature.

You can only use the following functions when the keypad is locked:

- Displaying the setpoint temperature
- Displaying minimum temperature
- Displaying maximum temperature



- ▶ Press and hold the "UP" and "DOWN" buttons simultaneously for several seconds.  
"POF" flashes on the display.
- ▶ Release both buttons.  
The keypad is locked; the actual temperature at the assigned cooling point is shown on the display.

"POF" will flash on the display if you attempt to use a locked function

##### Unlocking keypad



- ▶ Press and hold the "UP" and "DOWN" buttons simultaneously for several seconds.  
"PON" will flash on the display.
- ▶ Release both buttons.  
The keypad is unlocked; the actual temperature at the assigned cooling point is shown in the display.

**Pre-cooling the unit** Always insert the food pre-cooled. The unit is only suitable for keeping food cool, not for cooling food down.

In order to prevent pre-cooled food from heating up, the unit must be pre-cooled for about half an hour.

- ✓ Condensation water catch tray inserted on the unit underside
- Insert the plug into the socket outlet about half an hour before loading.
- Use the On/Off switch to start refrigeration.
  - The operation indicator LED illuminates.
  - The temperature display shows the actual temperature in the cooling tray.
  - The cooling tray will be cooled down.
- Change the setpoint temperature if necessary.
  - ↳ Chapter "Setting the setpoint temperature" on page 25

The "Refrigeration unit" operation indicator LED is lit while the refrigeration unit is in operation. As soon as the set setpoint temperature is reached, the refrigeration unit will switch off until the actual temperature has risen by a pre-set amount. The "Refrigeration unit" operation indicator LED goes out during this time.

The refrigeration fan runs continuously while refrigeration is switched on.



### Caution!

#### Danger of slipping

Water overflowing from the condensation water catch tray and spilling onto the floor poses a slip hazard.

- Empty the condensation water catch tray at least once a day; several times if a large quantity of condensation water accumulates.
  - Wipe up any condensation water from the floor.
- 

#### Loading the unit **B.PRO recommends:**

Loading with stainless-steel containers (good heat conductivity compared to synthetic containers).

Food should only be kept in Gastronorm containers or other coverable food containers in the cooling tray.

- ✓ Unit connected to a socket outlet
- ✓ Food containers and food pre-cooled
- ✓ Unit pre-cooled for about half an hour
- Insert the Gastronorm containers in the cooling tray.
  - or --
  - Place the other food containers (e.g. salad bowls) in the unit.

**Caution!****Danger of slipping**

Water may leak out of the unit while it is being loaded or food is being removed. This poses a slip hazard.

- Mop up excess water in the interior and water which has leaked onto the floor.

**Warning!****Serious injury from glass splinters**

If bowls or bottles are placed in direct contact with the floor of the cooling tray there is a risk that these containers will freeze to the floor and, in the worst case, shatter. Splinters of glass flying through the air may cause serious injuries, particularly to the eyes. In a worst case scenario, injured persons may lose their vision completely.

- Never place bowls and bottles in direct contact with the base of the cooling tray; always place on a slatted shelf instead.

**Refrigerating food**

- ✓ Unit connected to a socket outlet
- ✓ Unit in cooling mode  
(temperature display shows the current temperature in the cooling mode)
- ✓ Condensation water catch tray inserted on the unit underside
- Avoid draughts to ensure an optimum cooling effect.
- Maintain cooling mode until the food is removed from the unit again.
- Ensure food containers are covered if they are to be left in the cooling tray for an extended period.

**Automatic defrosting during operation**

The unit defrosts automatically every 6 hours. You will not need to carry out manual defrosting unless you see a layer of ice on the cooling tray or the cooling tray evaporator. As a generally rule, this will not happen unless the unit is being run under extreme ambient conditions such as high ambient temperatures and/or high humidity.

↳ Chapter "Defrosting unit manually" on page 41

The "Defrosting" LED lights up on the temperature controller display when automatic defrosting is in progress. The fan helps with defrosting. Food containers may be left in the cooling tray during automatic defrosting.

The condensation water catch tray must be emptied daily.

↳ Chapter "Drain condensation water catch tray" on page 42

**Checking temperature deviations**

If the actual temperature deviates from the setpoint by a certain amount, this temperature overshoot/undershoot is registered by the temperature control. The "Alarm" LED signal lights up temperature if deviations last longer than 30 minutes. Either "ALU" (inadequate temperature) or "ALL" (excessive temperature) and the actual temperature flash alternately on the display. After cooling is activated, inadequate or excessive temperature detection is disabled for 90 minutes to prevent any alarm signals during the pre-cooling phase.

**Displaying temperature deviation**

The "Alarm" LED signal lights up if there is a deviation in temperature. Either "ALU" (inadequate temperature) or "ALL" (excessive temperature) and the actual temperature flash alternately on the display.

If the actual temperature reaches the preset temperature range of the setpoint during an alarm indication, the actual temperature is displayed again. The "Alarm" LED signal is still lit up and must be reset manually.

This displayed alarm duration includes the 30 minutes before the alarm was triggered.

✓ The "Alarm" LED signal lights up



► Press the "UP" button briefly.

– or –

Press the "DOWN" button briefly.

"ALU" appears briefly on the display if the temperature exceeds the maximum and "ALL" if it falls below the minimum.

The highest/lowest temperature during the temperature deviation then appears on the display for about 2 seconds, followed by "tiM" and the duration of the temperature deviation (in h:min). The actual temperature display appears again.

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

The quality of the food located in the unit may be impaired by a power failure, unit malfunctions or other interruptions during storage.

- Check whether the food quality has been impaired after the core temperature has increased.
- Dispose of food if necessary.

**Resetting a saved alarm**

The alarm can only be reset if the inadequate/excessive temperature is no longer in effect. Interrupting the power supply is not an option for resetting the alarm indication. Alarm indications are saved and must be reset manually.

- ✓ The actual temperature is within the preset temperature range around the setpoint
- ✓ The "Alarm" LED signal lights up



- ▶ Press the "UP" button briefly.
- or –
- ▶ Press the "DOWN" button briefly.

"ALU" appears briefly on the display if the temperature exceeds the maximum and "ALL" if it falls below the minimum.

The highest/lowest temperature during the temperature deviation then appears on the display for about 2 seconds, followed by "tiM" and the duration of the temperature deviation (in h:min).

## SET

- ▶ Press and hold the "SET" button during this message (ALU or ALL, value of highest/lowest temperature deviation) until "rSt" briefly flashes on screen and the actual temperature reappears.

The "Alarm" LED signal goes out. The alarm is reset. The actual temperature appears in the display.

### Displaying/deleting maximum/minimum temperature

The cooling point control stores the maximum and minimum actual temperature read.

#### Displaying stored maximum temperature

- ✓ Cooling point control display shows actual temperature



- ▶ Press the "UP" button briefly.  
"Hi" will appear on the display, followed by the highest temperature read.
- ▶ Press the "UP" button again to return to the display showing the current temperature.
- or –
- ▶ Wait approx. 5 seconds.

#### Displaying stored minimum temperature

- ✓ Cooling point control display shows actual temperature



- ▶ Press the "DOWN" button briefly.  
The display shows "Lo" followed by the lowest temperature read.
- ▶ Press the "DOWN" button again to return to the display showing the current temperature.
- or –
- ▶ Wait approx. 5 seconds.

#### Deleting minimum/maximum temperature memory

- ✓ Cooling point control display shows actual temperature.
- ▶ Retrieve saved minimum temperature
- or –
- ▶ Call up stored maximum temperature.

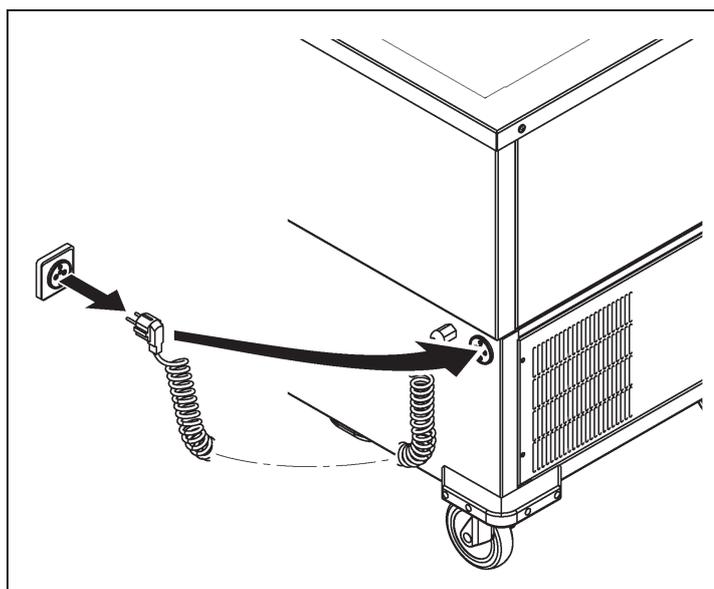
**SET**

- ▀ Press and hold down "SET" button.
- "rST" appears on the display.
- "rST" will flash on the display after about 5 seconds.
- The memory of the selected temperature has been deleted.

**Moving the unit to a new location****Unit model with folding shelf/shelves**

- ✓ Shelf/shelves folded down

- ▀ Switch off the unit at the on/off switch.  
The operation indicator LED goes out.
- ▀ Pull out the mains plug to disconnect the unit from the power supply.
- ▀ Only unplug the mains plug by the mains plug housing.
- ▀ Unplug the mains plug and store it in the mains plug retainer on the unit.

**Caution!****Pinched feet**

Your foot can be pinched and injured when you release or lock the brake.

- ▀ Be careful not to place your foot between the brake and the corner guard.

**Change of location**

- ☞ If the driving route is uneven, measures must be taken.
  - ☞ Chapter "Traversing ramps, recesses, inclined surfaces" on page 32
- ✓ Do not place objects on top of the unit
- ✓ Two people

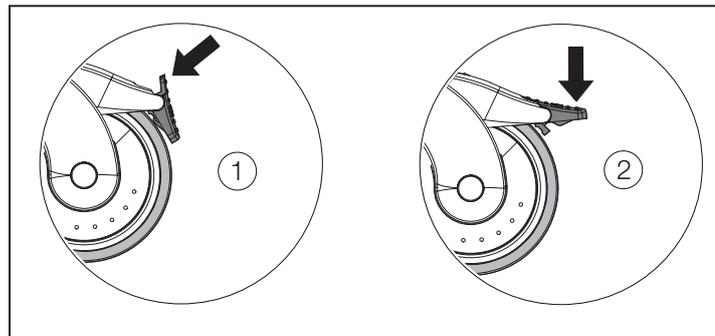
**⚠ Caution!**

**Injury and damage to property due to excessive speed**

If you move the unit too fast, you may not be able to brake it in an emergency. The unit can tip over and cause injuries and damage to property.

- Do not push the unit at a speed greater than 3 km/h (equivalent to a slow walking pace).
- Push unit in such a way that you can brake whenever required.
- Two people should push the unit when the field of vision is limited, during complicated transport manoeuvres and while traversing ramps, hollows and inclined surfaces.

- Release the castor brakes (1).



- Using both hands, carefully push the unit into position.
- Lock castor brakes (2).

**Traversing ramps,  
recesses, inclined  
surfaces**

- ✓ 2 people
- ✓ Unit is switched off
- ✓ Unit disconnected from the power supply
- ✓ Mains plug stored in the mains plug retainer
- First check whether the unit can be safely pushed over the ramp, recess or sloped surface.
- Carefully push the trolley over the ramp, recess or slanted surface with two people.

**Folding up and locking  
shelf**

**Unit model with folding shelf/shelves**

- Lift the shelf until it is about 30° above the horizontal.
- Now push the shelf towards the unit at a downward angle and let it engage into the two side locks.
- Check once more to ensure that the shelf is properly engaged into position in the two locks and adjust if necessary.

**Folding down the shelf****Unit model with folding shelf/shelves**

- Lift the shelf at an upward angle away from the unit until the two side locks disengage.
- Fold the shelf down.

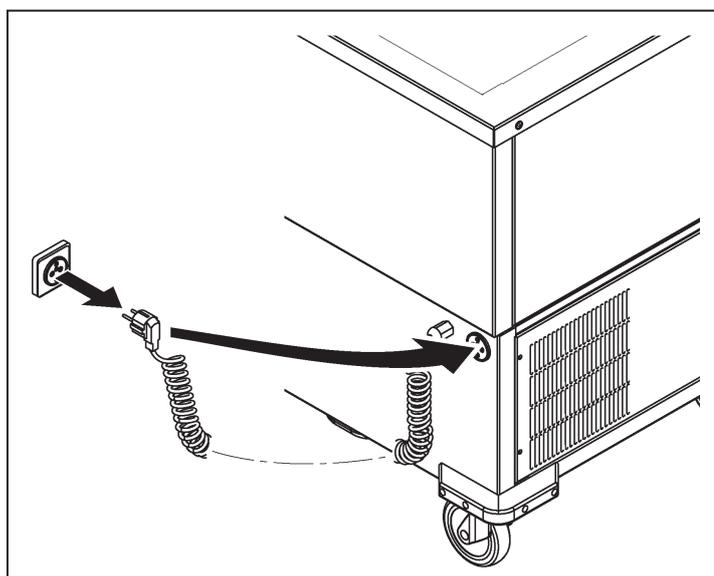
**Warning!****Risk of unit tipping over**

The unit can tip over when traversing a sloped surface.

- Never move the unit across a surface such as a ramp with an incline  $> 10^\circ$ .
- With both hands on the rail of the unit push handle, carefully push the unit to its new location.

## Shutting down

- Shutting unit down**
- Switch off the unit at the on/off switch.  
The operation indicator LED goes out.
  - Pull out the mains plug to disconnect the unit from the power supply.
  - Only unplug the mains plug by the mains plug housing.
  - Unplug the mains plug and store it in the mains plug retainer on the unit.
  - Empty unit.
  - Cleaning the unit.
  - Move unit to a secure place and store.



### Caution!

#### Damage to the unit electrical system

- Unplug the mains plug only with the unit switched off, otherwise the unit electrical system and the mains socket outlet can be damaged.
- 



### Caution!

#### Mould growth in interior

If the unit is taken out of operation or switched off for longer periods of time, mould may form or odours may be emitted in the interior.

- If the unit is taken out of operation or switched off for longer periods of time, leave the door open to allow the evaporator to dry.
-

## Troubleshooting

### Operation indicator LEDs do not light up – no mains voltage in the unit

Cause	Measure
Mains plug is disconnected or not plugged in properly.	<ul style="list-style-type: none"> <li>Plug the mains plug into the socket outlet and ensure it fits properly.</li> </ul>
Mains cable is damaged; e.g. a wire is broken (can also occur without external damage).	<ul style="list-style-type: none"> <li>Have a centre authorised to carry out repairs replace the mains cable.</li> <li>↳ Chapter "Repairs" on page 47</li> </ul>
Customer-supplied fuse (building fuse) is defective.	<ul style="list-style-type: none"> <li>Check customer-supplied fuse and replace it if necessary.</li> </ul>
Unit electrical system is defective.	<ul style="list-style-type: none"> <li>Notify a centre authorised to carry out repairs.</li> <li>↳ Chapter "Repairs" on page 47</li> </ul>

### Operation indicator LED on the refrigeration on/off switch lights up but the unit does refrigerate (sufficiently)

Cause	Measure
Setpoint temperature is set too high.	<ul style="list-style-type: none"> <li>Set a lower setpoint temperature.</li> <li>↳ Chapter "Setting the setpoint temperature" on page 25</li> </ul>
The area below the machine compartment and the optional ventilation slits is covered.	<ul style="list-style-type: none"> <li>Remove objects from the area below the machine compartment and from in front of the ventilation slits.</li> </ul>
High ambient temperature.	<ul style="list-style-type: none"> <li>Move unit to cooler environment.</li> </ul>
Evaporator in unit covered in ice.	<ul style="list-style-type: none"> <li>Defrost evaporator in unit.</li> <li>↳ Chapter "Defrosting unit manually" on page 41</li> </ul>
Unit is exposed to a (strong) draught.	<ul style="list-style-type: none"> <li>Eliminate the cause(s) of the draught or move the unit away from the draught.</li> </ul>
Temperature control is irregular.	<ul style="list-style-type: none"> <li>Switch off refrigeration briefly.</li> <li>↳ Chapter "Switching cooling on and off" on page 25</li> <li>If this does not solve the problem and the causes we have already mentioned can be ruled out, notify an authorised repair company.</li> <li>↳ Chapter "Repairs" on page 47</li> </ul>
"P1" displayed on the refrigeration unit temperature control (the thermostat sensor is defective).	<ul style="list-style-type: none"> <li>Notify a centre authorised to carry out repairs.</li> <li>↳ Chapter "Repairs" on page 47</li> </ul>
Refrigeration unit broken down.	<ul style="list-style-type: none"> <li>Notify a centre authorised to carry out repairs.</li> <li>↳ Chapter "Repairs" on page 47</li> </ul>
Unit electrical system faulty.	<ul style="list-style-type: none"> <li>Notify a centre authorised to carry out repairs.</li> <li>↳ Chapter "Repairs" on page 47</li> </ul>

**Temperature controller  
alarm message ("ALU" on  
display) –  
Excessive temperature**

Cause	Measure
High ambient temperature.	<ul style="list-style-type: none"> <li>■ Check temperature deviation and reset saved alarm.               <ul style="list-style-type: none"> <li>↳ Chapter "Checking temperature deviations" on page 29</li> <li>↳ Chapter "Resetting a saved alarm" on page 29</li> </ul> </li> <li>■ Move unit to cooler environment – or – Have a specialist refrigeration company change the temperature control refrigeration parameters (shorten defrost cycle).</li> </ul>
Evaporator is covered in ice.	<ul style="list-style-type: none"> <li>■ Check temperature deviation and reset saved alarm.               <ul style="list-style-type: none"> <li>↳ Chapter "Checking temperature deviations" on page 29</li> <li>↳ Chapter "Resetting a saved alarm" on page 29</li> </ul> </li> <li>■ Defrost unit.               <ul style="list-style-type: none"> <li>↳ Chapter "Defrosting unit manually" on page 41</li> </ul> </li> </ul>
Refrigeration unit failed or damaged.	<ul style="list-style-type: none"> <li>■ Check temperature deviation and reset saved alarm.               <ul style="list-style-type: none"> <li>↳ Chapter "Checking temperature deviations" on page 29</li> <li>↳ Chapter "Resetting a saved alarm" on page 29</li> </ul> </li> <li>■ Notify a centre authorised to carry out repairs.               <ul style="list-style-type: none"> <li>↳ Chapter "Repairs" on page 47</li> </ul> </li> </ul>

**Temperature controller  
alarm message ("ALL" on  
display) –  
Inadequate temperature**

Cause	Measure
Refrigeration unit does not switch off when setpoint temperature is reached.	<ul style="list-style-type: none"> <li>■ Check temperature deviation and reset saved alarm.               <ul style="list-style-type: none"> <li>↳ Chapter "Checking temperature deviations" on page 29</li> <li>↳ Chapter "Resetting a saved alarm" on page 29</li> </ul> </li> <li>■ Switch refrigeration off and on again with the On/Off switch.</li> <li>■ If the malfunction continues, notify a facility authorised to carry out repairs.               <ul style="list-style-type: none"> <li>↳ Chapter "Repairs" on page 47</li> </ul> </li> </ul>

**"PoF" appears on the temperature controller display when a button is pressed**

Cause	Measure
Keypad is locked.	<ul style="list-style-type: none"> <li>▶ Unlock keypad.</li> <li>↳ Chapter "Locking/unlocking keypad" on page 26</li> </ul>

**LED spotlights do not light up – lighting switched on**

Cause	Measure
LED spotlights are defective.	Have a qualified person, such as a qualified electrician replace the LED spotlights.

**Corrosion of stainless steel parts**

Cause	Measure
Incorrect handling/care.	<ul style="list-style-type: none"> <li>▶ Notify a centre authorised to carry out repairs.</li> <li>↳ Chapter "Repairs" on page 47</li> <li>▶ Ensure proper handling/care.</li> </ul>

**The unit has external damage**

Cause	Measure
Damage during transport, change of location or other external influences.	<ul style="list-style-type: none"> <li>▶ Shut unit down.</li> <li>↳ Chapter "Shutting down" on page 34</li> <li>▶ Secure the unit to ensure it cannot be started up accidentally.</li> <li>▶ Notify a centre authorised to carry out repairs.</li> <li>↳ Chapter "Repairs" on page 47</li> </ul>

**Refrigerating capacity decreases and/or loss of refrigerant is detected**

Cause	Measure
Leak in the cooling circuit.	<ul style="list-style-type: none"> <li>▶ Do NOT operate lights or turn on any other potential sources of ignition (e.g. switches, lighters).</li> <li>▶ Do NOT remove mains plug.</li> <li>▶ Switch off unit at the mains switch.</li> <li>▶ Open doors and windows.</li> <li>▶ Notify B.PRO Service Department.</li> </ul>

## Cleaning and care

### Information on cleaning stainless steel

Corrosion-resistant stainless steel is a designation for extremely corrosion-resistant and hygienic steels. The stainless steel currently used at B.PRO (AISI 1.4301) primarily consists of iron, chrome and nickel.

The corrosion resistance in corrosion-resistant steel is provided by what is known as a passive layer, formed on the material surface when it comes into contact with oxygen. Damage to the passive layer caused by mechanical impact is automatically repaired if sufficient oxygen is present on the material's surface.

The passive layer can be damaged due to the effects of certain aggressive agents. Such substances are also found in low concentrations in drinking water, one example being chloride. When water evaporates, it may produce a critical higher concentration of substances. Grease, limescale, starch and protein deposits can impair the formation or renewal of a passive layer.

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

- Concentrated acids, halogens, such as chlorides or bromides, and their salts, and seasoning containing cooking salts
- Acid vapours which may form when industrial cleaners are used, for example
- Contact with other metals, such as steel or iron
- Contact with iron, such as iron contained in steel wool, chips from pipelines or water containing iron particles

Contact with the aforementioned substances must be avoided to maintain corrosion resistance. You must observe the following instructions on cleaning and care.

- Stainless-steel surfaces must be kept clean, dry and open to the air at all times.

#### **B.PRO recommends:**

Observe the following additional instructions for heavily used stainless-steel surfaces, such as heated bain-marie wells:

- Remove/dry water, moisture and water spots immediately. Do not allow to evaporate or dry out.
- Wipe to remove any visible deposits.
- Drain the water completely and rinse with clean water after each use – at least once a day as a minimum. Then wipe/rub the cleaned surface dry with a soft cloth.
- Do not cover the surface after drying.
- Treat with DeepClean Stainless Steel.

### Cleaning interval

- Thoroughly clean and rinse the surface with clean water and dry after every use.

### Cleaning methods

Wiping clean with a damp cloth forms a mandatory part of the daily routine cleaning. Stubborn stains can be removed with a brush (synthetic or natural bristles).

**Any other cleaning methods must be approved by B.PRO.**

- ▶ Do not use steam jet units, high-pressure cleaners, water sprayers or similar cleaning devices.
- ▶ Do not use integrated heating systems to dry surfaces under any circumstances.

**Cleaning agents****The following cleaning agents are suitable for stainless-steel surfaces:**

- Commercially available stainless steel cleaning agents without chlorides, such as DeepClean Stainless Steel
- Commercially available water-based cleaning agents which do not contain chlorides
- Commercially available organic-based decalcifiers or anorganic acids which do not damage stainless steel, such as acetic acid, citric acid, sulfamic acid or phosphoric acid; contact the cleaning agent manufacturer in case of doubt
- Soft cleaning cloth or damp microfibre cleaning cloth

❗ A list of tested cleaning agents suitable for stainless steel is available from the German Swimming Pools Association (Deutsche Gesellschaft für das Badewesen e.V.) at [www.baederportal.com](http://www.baederportal.com) (Reinigungsmitteldatenbank/Liste RE). Further information on cleaning can be obtained from the German Stainless Steel Information Point website [www.edelstahl-rostoffrei.de/publikationen/euro-inox-publications](http://www.edelstahl-rostoffrei.de/publikationen/euro-inox-publications).

**Cleaning agents which are not suitable for stainless-steel surfaces are:**

- All cleaning agents that may contain chlorides or hypochlorite (e.g. decalcifiers made with hydrochloric acid, chlorine bleaches)

**The following cleaning agents are suitable for other metal surfaces, powder-coated parts of the unit and for synthetic and glass elements:**

- Commercially available water-based cleaning agents
- Soft cleaning cloth
- B.PRO microfibre cleaning cloth (use with water only)
- Residue stains, especially grease splashes and accumulations of grease, can be removed with a 30 % soft soap solution and the help of a brush with synthetic or natural brushes.
- Glass surfaces can be easily cleaned with commercially available glass cleaners.

**Cleaning agents which are not suitable for other metal surfaces, powder-coated unit parts or for synthetic and glass parts include:**

- Stainless steel cleaning agents or other abrasive cleaning agents
- Floor cloth
- Solvent-based cleaning agents
- All cleaning agents that may contain chlorides or hypochlorite (e.g. decalcifiers made with hydrochloric acid, chlorine bleaches)
- Aggressive corrosion-inducing cleaning agents/disinfectants (e.g. those based on fluorinated silicic acid, phosphoric acid or hydrochloric and sulphuric acid)

- All cleaning agents that may contain chlorides or hypochlorite (e.g. decalcifiers made with hydrochloric acid, chlorine bleaches)
- Aggressive corrosion-inducing cleaning agents/disinfectants (e.g. those based on fluorinated silicic acid, phosphoric acid or hydrochloric and sulphuric acid)

**Cleaning the unit**

- ✓ Unit is switched off.
  - ✓ Unit disconnected from the power supply
  - ✓ Mains plug stored in the mains plug retainer
  - ✓ Unit has reached room temperature
  - ✓ No food in unit
- 
- Unplug mains plug from the electrical outlet and insert it into the power plug retainer.
  - Clean unit with cleaning methods and cleaning agents described above.
    - ↳ Chapter "Cleaning methods" on page 38
    - ↳ Chapter "Cleaning agents" on page 39
  - After cleaning with a stainless steel cleaning agent, rinse with water and rub dry.

**Warning!****Water penetrating into the housing**

Water may penetrate into the housing when cleaning the connected unit and can cause a short circuit or an electric shock.

- Switch off the device with the "ON/OFF" button.
- Pull out the mains plug to disconnect the unit from the power supply.
- Only unplug the mains plug by the mains plug housing.
- Unplug the mains plug and store it in the mains plug retainer on the unit.

**B.PRO recommends:**

As a basic rule, you should always test chemical cleaning agents on a hidden spot first to ensure they are compatible with the surface. This will prevent any unwanted discolouration or other reactions between cleaners and the surface.

- If mineral or metallic dust needs to be removed during cleaning, cleaning utensils, such as brushes and microfibre cloths, must be continuously rinsed to ensure that dust particles leave no marks behind on the surface.
- You must thoroughly rinse the surface with clean water and dry after every use.
- Do not use integrated heating systems to dry surfaces under any circumstances.
- Surfaces made of stainless steel must be kept clean, dry and open to the air at all times.

**Defrosting unit manually** The unit defrosts automatically every 6 hours. You will not need to carry out manual defrosting as well, except in the following circumstances:

- The actual temperature of the cooling tray slowly rises above the set setpoint temperature.
- There is a clear layer of ice on the cooling tray (3 to 5 mm).
- There is considerable icing on the evaporator fins.
- The evaporator has frozen solidly to the unit tray.

You normally only need to allow the unit defrost briefly (half an hour) by starting manual defrosting. Occasionally (especially if the evaporator is frozen solid), it may be necessary to defrost the unit by switching off the refrigeration for approx. 24 hours. Both cases are described in more detail below.



#### Caution!

#### Danger of slipping

A danger of slipping exists if cleaning water runs out of the unit during or after cleaning.

- Mop up water which has leaked onto the floor.
- 



#### Quick defrost

- Press the "Manual defrost" button for about 2 seconds to start defrosting manually. Cooling is stopped and defrosting starts. The fan helps with defrosting. The "Defrosting" operation indicator LED lights up.

You need to switch off cooling to end defrosting mode to interrupt manual defrosting.

The unit automatically switches back to the cooling mode after the programmed defrosting period.

Defrosting is now complete.

#### Long defrost

If defrosting does not eliminate the problem (one of the symptoms described above still persists), you will need to shut down cooling for an extended period.

The procedure to follow in this case is described below:

- Press the "ON/OFF" button.
- If there are still food containers in the cooling tray, remove them.
- Use 2 people to remove the cooling tray.
- Unplug the mains plug and insert it into the mains plug retainer.
  - ↳ Chapter "Shutting down" on page 34.

Leave cooling switched off for **24 hours**.

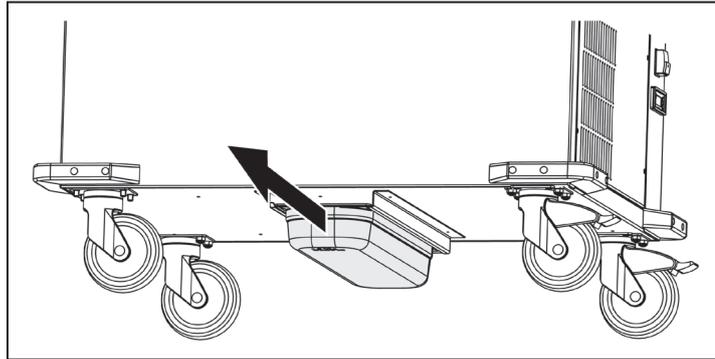
- Cleaning the unit.
  - ↳ Chapter "Cleaning the unit" on page 40
- If necessary, empty or clean the condensation water catch tray.
  - ↳ Chapter "Drain condensation water catch tray" on page 42

The condensation water catch tray must be emptied daily and cleaned every two weeks.

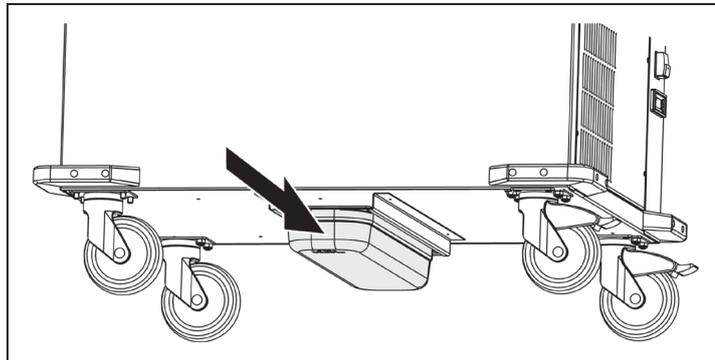
**Drain condensation water catch tray**

The condensation water catch tray can be removed or reinserted on both long sides of the unit.

- Pull the condensation water catch tray out of the guide.



- Drain condensation water catch tray.
- If necessary, clean the condensation water catch tray using the cleaning methods and cleaning agents described above.
- Slide the condensation water catch tray into the guide again.



- Drain condensation water catch tray daily and clean every two weeks.

**⚠ Caution!**

**Danger of slipping**

Water overflowing from the condensation water catch tray and spilling onto the floor poses a slip hazard.

- Empty the condensation water catch tray at least once a day; several times if a large quantity of condensation water accumulates.
- Wipe up any condensation water from the floor.

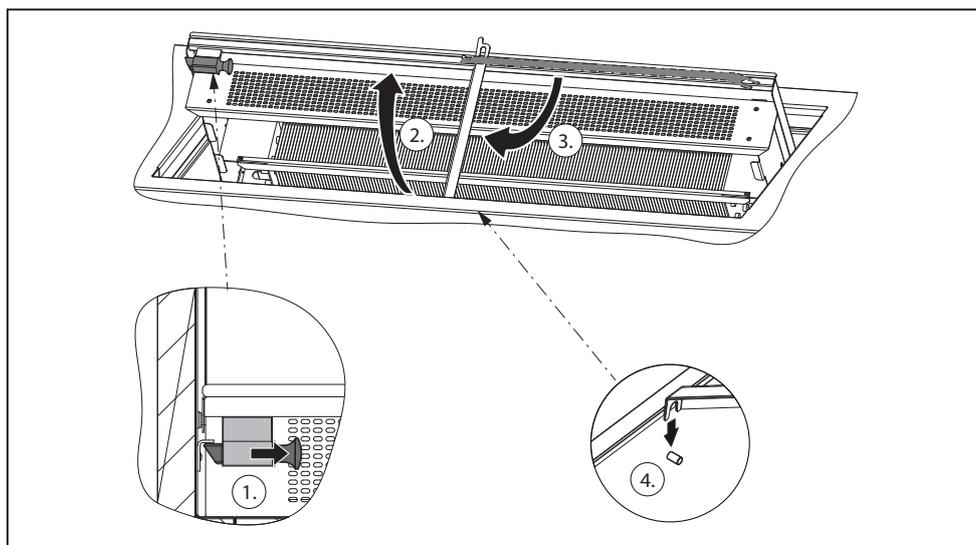
**Cleaning the unit tray (as necessary)**

To allow thorough cleaning of the unit tray the cooling tray can be removed and the evaporator underneath it lifted up.

**Caution!****Damage to the unit due to forced opening of a frozen evaporator**

The evaporator can freeze solidly to the unit tray. If you try to force the evaporator upwards, you may damage it.

- Do not try to lift the evaporator using force.
- 
- Unplug the mains plug and insert it into the mains plug retainer.  
 ↳ Chapter "Shutting down" on page 34
  - Use two people to remove the cooling tray.
  - To prevent cleaning water from freezing inside the unit, you should allow the unit to warm up for at least 30 minutes.
  - If the evaporator has frozen solid, defrost the unit.  
 ↳ Chapter "Defrosting unit manually" on page 41



- Open lock (2.).  
 The bolt is located on the left on both sides, beneath the evaporator cover (1).  
 Fold the evaporator upwards (3.).
- Turn the locking bar 90° (4.).
- Engage the locking bar on the pin (5.).

**Caution!****Extremity crushing**

If the evaporator is not locked into position properly, there is a danger of it suddenly falling down and crushing fingers, hands or other parts of the body.

- Before cleaning the unit tray, ensure the evaporator is locked in place properly.
- 

**Caution!****Cuts**

The evaporator fins have sharp edges. Be careful when working beneath the evaporator in its raised position or you may cut yourself.

- Always wear protective gloves when cleaning the unit tray.
- 

**Warning!****Material damage can occur due to the decomposition of the aluminium**

The evaporator fins are made of aluminium. Acids can react strongly with aluminium. There is a health risk due to boiling acid and chemical reaction products! Material damage can occur due to the decomposition of the aluminium.

- Before treating stainless steel parts, protect all aluminium parts against contact with acid (e.g. splashes).
- Clean beneath the evaporator using the cleaning methods and cleaning agents described above.
  - ↳ Chapter "Cleaning methods" on page 38
  - ↳ Chapter "Cleaning agents" on page 39
- Wipe the unit tray dry.

## Maintenance

### Having the unit regularly maintained

Regular maintenance prevents the unit from breaking down, extends its operating life and helps to retain its general value.

#### **B.PRO recommends:**

Regular maintenance of the unit by appropriately trained professionals.

- Document all maintenance executed and file the associated documents accordingly.
- Have a suitably trained professional maintain the unit on a regular basis.



#### **Warning!**

#### **Live components**

Live components may cause an electric shock if touched during maintenance work or when replacing parts on the connected unit.

- Switch off the unit at the on/off switch.
  - Pull out the mains plug to disconnect the unit from the power supply.
- 

### Having regular maintenance performed on refrigeration unit

#### **B.PRO recommends:**

Leak test of the complete cooling circuit/refrigeration system at regular intervals of 12 months.

- Only have authorised, expert professionals trained to handle propane refrigerants (R290) carry out work on the refrigeration system.
- ☞ The contracted refrigeration engineer must be able to demonstrate at least Category II expertise as specified in Regulation (EU) No. 517/2014 of the European Parliament and of the Council of 16 April 2014 on fluorinated greenhouse gases.
- Also clean the evaporator during such maintenance work.
- Only refill the refrigerant indicated on the rating plate. Observe the specified fill level.
- Always check the cooling circuit for leaks and corrosion and repair and restore if necessary.

### Checking the castor brakes

The castor brakes must be checked to ensure they are effective every time the unit is moved to a new location.

- Lock castor brakes.
- Try to move the unit (do not use force!).
- If braking is inadequate, have the defective castor(s) replaced immediately by one of the following:
  - In-house, by B.PRO-trained professionals
  - External, B.PRO-trained customer service
  - B.PRO Service

### Performing maintenance on seals

- Treat the unit's seals regularly (monthly) with a commercially available care product to prolong their service life.

**Having periodical electrical safety inspection carried out**

- ▶ Have a qualified electrician carry out a periodical electrical safety inspection at least once every six months in accordance with the DIN VDE 0701 and DIN VDE 0702 series of standards.

**Checking the connection cable and mains plug**

- ▶ Check the connection cable and mains plug for mechanical damage and signs of excessive deterioration at least once every six months in accordance with DGUV Regulation 3 (formerly BGV A3) or equivalent national regulations.

**Changing cooling parameters**

- ① The cooling parameters of temperature control (e.g. switching hysteresis) can be modified or reset as required by a specialist refrigeration company. Information on setting the temperature control is contained in the separate instructions for the temperature control included in the machinery compartment.
  - ↳ Chapter "Instructions for the temperature control".
- ▶ If necessary, have a specialist refrigeration company change the cooling parameters.

## Repairs

### Authorised persons

☞ Repairs may only be carried out by the following authorised service points:

- In-house, by B.PRO-trained professionals
- External, B.PRO-trained customer service
- B.PRO Service
- For repairs to the refrigeration system:

Authorised specialist refrigeration company for the refrigerant propane (R290).

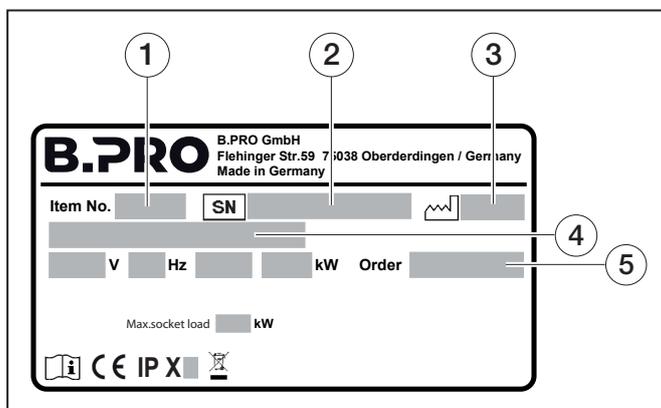
The contracted refrigeration engineer must be able to demonstrate at least Category II expertise as specified in Regulation (EU) No. 517/2014 of the European Parliament and of the Council of 16 April 2014 on fluorinated greenhouse gases.

### Fault description

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

- Article number
- Serial number
- Date of manufacture
- Model
- Production order number (optional)

The rating plate is located near the power supply cable to the unit.



- (1) Article number
- (2) Serial number
- (3) Date of manufacture
- (4) Model
- (5) Production order number (optional)

**Replacing components** ☞ Defective components, including the mains cable, may only be replaced by the following service points:

- In-house, by B.PRO-trained professionals
- External, B.PRO-trained customer service
- B.PRO Service
- For repairs to the refrigeration system: Authorised specialist refrigeration company for the refrigerant propane (R290). The contracted refrigeration engineer must be able to demonstrate at least Category II expertise as specified in Regulation (EU) No. 517/2014 of the European Parliament and of the Council of 16 April 2014 on fluorinated greenhouse gases.

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

- Designation of spare part
- Article number
- Date of manufacture of the unit
- Quantity

☞ See the Service Information System on the Internet ([www.bpro-solutions.com](http://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  
E-mail [service@bpro-solutions.com](mailto:service@bpro-solutions.com)  
Internet [www.bpro-solutions.com](http://www.bpro-solutions.com)

**Without being commissioned** The warranty will be invalidated if repairs are carried out by anyone else.

## Disposal

### Disposing of the unit

When disposing of old electrical or electronic appliances in regular municipal waste, specific contents in the unit may pose a hazard to the environment and people's health. You must therefore never dispose of the unit with normal municipal waste but take it to a separate waste collection point for electrical appliances, such as a specialised disposal plant.



The unit bears the symbol on the left to indicate such contents in compliance with EN 50419 – Marking of electrical and electronic equipment in accordance with Article 15(2) of Directive 2012/19/EU (WEEE).

You must also take into account other possible national regulations concerning disposal.

- Ensure that the unit and door locks can no longer be used prior to disposal (e.g. by cutting off the mains plug).
- An authorised specialist refrigeration company must dispose of the refrigerant as specified in the applicable statutory regulations.
- Take the emptied unit to a recycling centre or electrical refuse collection site.

☞ The product can be returned to B.PRO free of charge.

☞ You must not dispose of this product with other commercial waste.

① You can obtain further information on disposal from your dealer or the B.PRO Service Department.

📄 Chapter “Address” on page 48

## Technical data

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

### General data    **Dimensions and weight – unit without accessories/optional equipment (standard model)**

Model	Dimensions in mm (Length x Width x Height)	Empty weight in kg
SAW 2-UK	936 x 714 x 933	98
SAW 3-UK	1276 x 714 x 933	118

### **Dimensions – accessories/optional equipment**

Accessory/option	Dimensions in mm (Length x Width x Height)
Shelf for long side, SAW 2-UK	819 x 245 x 35
Shelf for long side, SAW 3-UK	1159 x 245 x 35
Shelf for short side	633 x 245 x 35

### **Protection type**

IP X5 (protected against sprayed water (nozzle) from any angle in accordance with DIN EN 60529)

### **Electrical data    Connected loads**

Voltage: 220–240 V, 1 N PE, 50 Hz  
 Max. power consumption in the unit: You will find specifications on the rating plate

### **Environment    Ambient conditions – operation**

Temperature: +15 °C to +32 °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). No other problematic or dangerous emissions occur.

### **Materials**

Unit body: CNS 18/10

**Cooling systems****SAW 2–UK**

Refrigerant:	R290
Filling weight:	0.07 kg
Cooling range:	+2 °C to +15 °C
The temperature is reached at the geometric centre of the cooling tray.	
Climate class:	4
Max. permitted operating pressure:	23 bar
Sealing:	Refrigeration system checked for leak tightness at factory
Defrosting:	Automatic; manual when necessary
Refrigerating capacity:	0.53 kW at
$t_0 =$	-10 °C (evaporation temperature)
$t_u =$	+32 °C (ambient temperature)
Electric power consumption	
Refrigeration unit:	0.33 kW

**SAW 3–UK**

Refrigerant:	R290
Filling weight:	0.09 kg
Cooling range:	+2 °C to +15 °C
The temperature is reached at the geometric centre of the cooling tray.	
Climate class:	4
Max. permitted operating pressure:	23 bar
Sealing:	Refrigeration system checked for leak tightness at factory
Defrosting:	Automatic; manual when necessary
Refrigerating capacity:	0.53 kW at
$t_0 =$	-10 °C (evaporation temperature)
$t_u =$	+32 °C (ambient temperature)
Electric power consumption	
Refrigeration unit:	0.33 kW

## Ordering information

<b>SAW 2-UK</b>	Article number	572 429
<b>SAW 3-UK</b>	Article number	572 430
<b>Operating instructions</b>	Document number	154 227
<b>Instructions for temperature controller</b>	Document number	Documents may be obtained from the B.PRO Service Department

## Accessories

<b>Gastronorm containers</b>	Article number	B.PRO price list
<b>B.PRO microfibre cleaning cloth</b>	Article number	126 999
<b>DeepClean Stainless Steel cleaning and care agent</b>	Article number	511 895

## Standards, guidelines, rules, regulations

**Standards** The unit is in compliance with the fundamental requirements specified in the applicable product standards in their latest version when it is delivered.

**Directives for CE marking/EU declaration of conformity**

Where applicable, the unit is in compliance with the fundamental requirements specified in the following regulations/guidelines in their latest version when it is delivered.



- 1935/2004 Regulation on materials and articles intended to come into contact with food
- 2006/42/EG Machinery Directive
- 2014/35/EU Low Voltage Directive
- 2014/30/EU EMC Directive
- 2011/65/EU RoHS Directive
- 2014/68/EU Pressure Equipment Directive

**Rules, regulations**

The following rules, regulations, German Employers' Liability Insurance Association rules and any other applicable provisions for countries of use must be observed in their latest version when handling and using this unit.

- EC No. 852/2004 Regulation on the hygiene of foodstuffs
- DGUV regulation 110-003 Kitchen industry
- DGUV Regulation 3 Accident prevention regulations for electrical facilities and devices

You can obtain a copy of the EU declaration of conformity from the B.PRO Service/Sales Team on request.





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