

INSTALLATION AND OPERATING INSTRUCTIONS

2312142

Heated Display Case Snack-Counter HOT

1. General

These instructions include important information for the safe and appropriate use of the device. Protect yourself from danger and avoid damage to your device.

Please read these instructions carefully. Keep these instructions in a safe, even for other users of the device, accessible place. The device must be set up and put into operation in accordance with the manufacturer's instructions. Local laws and regulations must be observed.

The device is not intended for private domestic use.

If any defect occurs at the device or at an accessory part of the furniture or in case of malfunctions, please check immediately whether this poses a risk to persons or property. If necessary, disconnect the device from the mains and contact the nearest authorised customer service centre.

All users of the device must be instructed in the proper and safe use of the device.

1.1 Symbols



General warning sign:

This symbol warns of potential dangers and points to important information about the correct use of the device.

Failure to follow these instructions could cause damage to the device or the environment!



Electrical voltage warning:

This symbol warns of potential or immediate danger to life and health of a person and / or danger.

Ignoring these notes could result in damage to your health and / or your possession!



Hot surface warning:

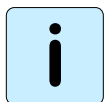
This symbol warns of hot surfaces – risk of burns.

Ignoring these notes could result in damage to your health and / or your possession!



General mandatory sign:

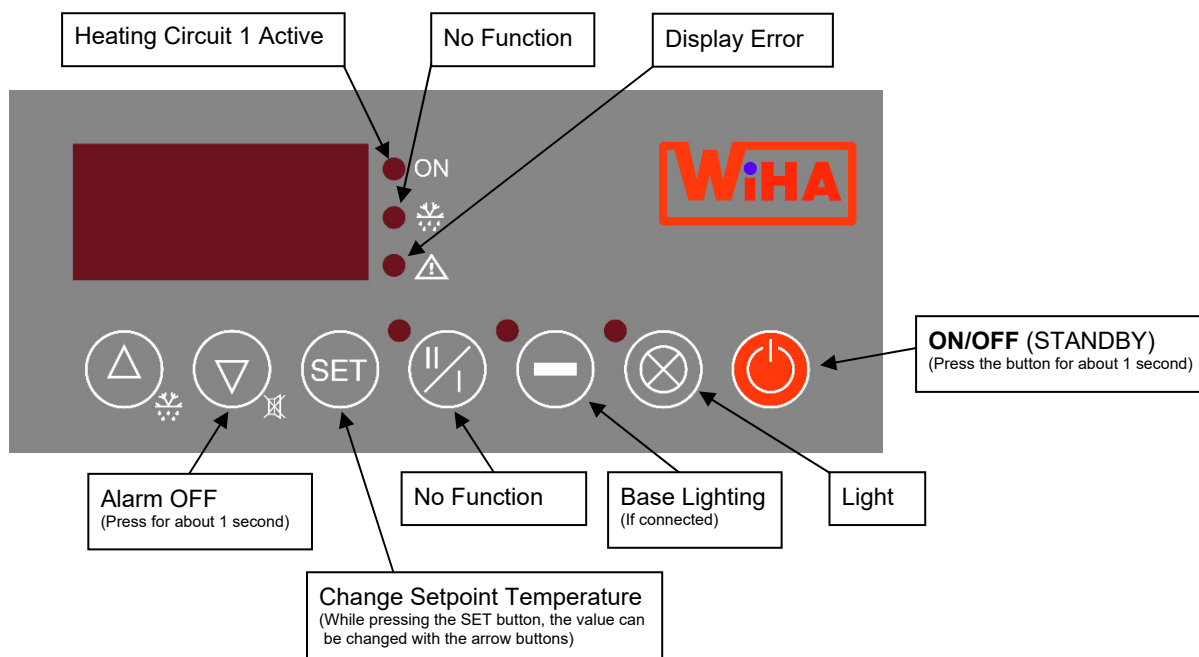
This symbol indicates suggestions and information to enable optimal handling and a smooth operation of the device and makes a valuable contribution to improved safety and accident prevention in the workplace.



General information:

This symbol indicates particularly useful information and provides valuable information for handling.

2. How to Use the Controller



Switching ON and OFF

By pressing the button "ON/OFF" (press for at least 1 second), the heated display case is switched on or off (STANDBY). When the device is switched on, the current temperature is shown in the display. When the device is switched off and the main switch is on (STANDBY mode), a flashing dot appears in the lower right corner of the display. Shortly after switching on, the frame heating and the lighting are automatically switched on.

Display

The standard display indicates the temperature of the device (actual temperature value). By pressing the SET button, the display switches to the temperature desired by the user (setpoint temperature).

Adjusting the Setpoint Temperature

The setpoint temperature can only be changed by pressing the buttons SET and ▲ or SET and ▼ at the same time. While pressing the buttons, the changing setpoint temperature is displayed. After changing the setpoint temperature and releasing the buttons, the actual temperature is displayed again.

Lighting

The lighting can be switched on and off by pressing the button "LIGHT".

Acknowledgment of the Buzzer

Occurring acoustic alarms can be acknowledged by pressing the button ▼ (press for at least 1 second).

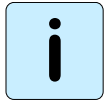
Base Lighting (optional)

The optional base lighting can be switched on and off with this button.

3. Purpose

The device is suitable for the presentation and sale of hot food such as fried, boiled, and breaded food in flat bowls for immediate sale.

The appliance has been developed especially for installation in food and service counters.



The appliance must only be installed in environments that do not contain caustic or corrosive components in the ambient air such as chlorine for example.

The appliance is only guaranteed to work properly if it is installed, erected and operated in accordance with these operating instructions. The device cannot be used for heating up cold food or for boiling liquids.



The heated device may only be operated under supervision.

4. Starting the Appliance



Please remove all protective films from the appliance before starting it. You must also clean the appliance before starting it for the first time.

The device must be checked before starting. Faulty devices must not be put into operation! Please observe the safety instructions.

To switch on the appliance, press the button “ON/OFF” for about 1 second.

5. Stocking the Device with Merchandise

The device can be equipped with flat heat-resistant GN containers or trays made of stainless steel or ceramics, which contain the food.

Before you stock the device with merchandise, please wait until the desired temperature has been reached. The merchandise should be brought in with a temperature prescribed for it, but not less than 80 °C.



The maximum load for the merchandise display and intermediate shelves is 20 kg altogether, if the load is evenly distributed.

Especially for the devices “Snack-Counter HOT BO” and “Snack-Counter HOT KO” that are not closed on all sides, the maximum temperature of the goods and the dwell time inside the display case is strongly dependent on external influences, such as ambient temperature, air movement in front of the display case, height of the goods, and moisture content of the food, so that the following must be observed:

- The temperature of the food that is brought in should not fall below 80°C.
- The ambient temperature should not fall below 23°C.
- Containers with a high liquid content should be covered with a lid.
- The maximum possible keep-warm time results from the time in which the temperature in the food remains above 65°C.

6. Cleaning and Care



CAUTION, risk of burns!

Before cleaning or maintenance work, switch off the device and let it cool down.

Basic recommendations

The device should be cleaned once a day, inside and outside, depending on the operating conditions.

The stainless-steel surfaces should always be kept clean and free from rusty material.

The radiator tubes must not be touched with the fingers (risk of burn-in of fats, reduced service life). Vibrations on the device should be avoided.



Before cleaning and maintenance, the device must be switched off at the main switch and must be disconnected from the power supply. For devices with mains plug, unplug the mains plug! In case of devices without mains plug, disconnect the on-site disconnecting device and secure it with a lock in disconnected position.

In order to avoid injuries caused by high temperatures, the cleaning must be carried out only after the device has cooled down.

Remove the merchandise.

Cleaning agents

Lukewarm soapy water: All surfaces that come into direct contact with the food can be cleaned with lukewarm soapy water.

Stainless steel: Stainless steel surfaces should be treated with commercially available stainless steel cleaning agents.

Glass: The glass surfaces can be cleaned with commercially available glass cleaner.

Do not use sharp smelling cleaning agents. Do not use any solvents, caustic or corrosive cleaners, steel wool or abrasives. Do not use high-pressure cleaners or jet of water for cleaning. Do not treat the appliance with acids or release acid vapours, because this would damage the passive layer of the chrome-nickel steel and may cause the appliance to become discoloured.



Do not wash down the appliance or put it in water.

Dirt on the top side of the hotplate must be removed immediately, so that it cannot burn in. The cleaning of the hotplate is done with a damp cloth and mild detergent. Do not use abrasive cleaning agents. Make sure that no water runs under the hotplate.

The glass panes can be treated with commercial glass cleaners. For the glass holders and supports, only liquid detergent may be used without abrasive effect.

The infrared radiators and halogen lamps must not be cleaned.

The control panel may only be cleaned with a damp cloth. Cleaning with running water or water jet must be avoided in the area of the controller, as this may cause damage to the controller.

7. Warnings

For your own safety, basic rules must be followed when you handle this or any electrical appliance. These rules in particular should be observed:



- **Caution, risk of burns!**
The inner surfaces of the device are very hot. High temperatures can also occur on the outer panels. These areas must not be touched!
- **Caution, risk of burns!**
Please be aware that in the heated inner room, the surfaces of the heaters are hot and that you can burn yourself on hands and arms:
 - Behave calmly and carefully
 - Wear protective gloves if possible
 - Keep unauthorised persons away
 - Never operate the device unattended!
- **Caution, risk of burns!**
The lighting cover and the lamps can get very hot during operation. Lamps must be changed only by specialists. The device must be switched off and the lamp must be cooled down for this work.
- **Easily flammable objects or liquids must not be stored in the area of the device, because they could catch fire.**



- **Make sure that the area below the device is open or well ventilated. Otherwise, it may lead to uncontrolled heating in this area that can cause damage.**

- Do not clean the device with a jet of water.
- Protective covers and safeguards must not be removed otherwise there is a risk of injury!
- The ambient temperature should not fall below 23 °C because otherwise the prescribed core temperature cannot be maintained.
- The product should be brought in with a temperature prescribed for it, but not less than 80 °C.
- The device is not intended for private domestic use.
- Disconnect the plug from the wall outlet by pulling on the plug, not the cable.
- Do not operate the device unattended. To avoid burns on hot surfaces, the use in public and the use with self-service are only allowed under constant supervision.
- All glass tops must be handled with the necessary care, to avoid injuries caused by glass breakage.
- If the radiator tube is damaged, glass fragments may fall into the food. As soon as there is a fault or a defect in the heat radiators, make sure that the food that is under the radiator will no longer be eaten or processed.
- Do not allow unsupervised children near the appliance.
- Do not expose the appliance to atmospheric influences such as rain etc.
- After unpacking the appliance, make sure it has not been damaged. In case of doubt, do not start the appliance and inform a competent technician or our Customer Service Department.
- Keep packaging materials (plastic bags, films, polystyrene, nails, screws, slabs of wood etc.) out of reach of children. These parts are potential hazard sources!
- The appliance may only be used for the purpose indicated.
- Existing double-cap fluorescent lamps may only be replaced by identical lamps.
- When lifting, make sure that no other persons are in the danger zone. Always lift loads in the centre of gravity. Wear protective gloves and safety shoes during assembly work.
- When opening the transport packaging, there is a risk of crushing caused by packaging plates and the device and also a risk of injury from protruding nails and screws. Open the transport packaging carefully. If necessary, add more people to help.
- When removing the wood packaging, be aware of possible dangers caused by dropping pieces of wood. If necessary, add another person to help. The device should be lifted with a suitable lifting device, for example lift trucks. A manual lifting of the device must be carried out by at least four persons. These people need to be strong enough. Wear protective gloves and safety shoes during assembly and loading activities.
- Pay attention to the risk of crushing when inserting the devices, even for third parties. A manual lifting of the devices must be carried out by at least four persons. These people must be strong enough to carry the devices. If necessary, add another person to give instructions. Wear protective gloves and safety shoes during assembly and loading activities.
- The underframe, in which the device is mounted, must have sufficient stability to carry it permanently.

- For devices with 230 volts and power plug, the mains plug must not be removed and replaced by a fixed connection!
- For devices with 400 volts, a three-pole main switch must be provided by the customer! This is not included in the scope of delivery.
- Before connecting it, please check whether the information on the power rating plate corresponds to the indoor installation values. Basic safety regulations must be followed at all times.

In case of doubt, a qualified expert must thoroughly check the indoor installation. Electrical safety is assured only when the appliance has been installed and earthed in accordance with the Safety Regulations for Electrical Connections. If the wall outlet does not correspond to the plug, it should be replaced with an outlet that does correspond.



The appliance must be disconnected from the mains before any maintenance work is performed. This is done by shutting off the main switch and disconnecting the plug from the wall outlet.

If a malfunction or error condition is discovered, the appliance must be disconnected from the power supply.

Repairs may only be carried out by a qualified professional authorised by us or by our customer support service. Only original spare parts may be used. In case of intervention by unauthorised persons or by the use of spare parts, which have not been purchased from us, our warranty becomes void.

Within the warranty period, the intervention may only be carried out by our factory customer service or by persons authorised by us. Otherwise, our warranty expires. Only original spare parts may be used. By the use of other spare parts, our warranty becomes void.

8. Intended Use

The appliance is state of the art at the time of delivery, built in accordance with recognised safety regulations and is safe to operate. Nevertheless, there may be a danger to life and/or limb of the user or third parties, or the appliance and other material assets may be damaged if it is used incorrectly by untrained personnel or is not used in the way it is intended to be.

The appliance should be in perfect technical condition and used as intended. Please exercise proper safety awareness and follow the operating instructions. Faults that potentially threaten safety should be dealt with immediately. The appliance is intended solely for the purpose stated in chapter 3. Any use other than the aforementioned intended use is not normal. The manufacturer/supplier shall not be liable for damage resulting from this. The user alone bears the risk. Intended use also includes following the Installation and Operating Instructions and complying with inspection and maintenance conditions.



Check for loose connections, leftover gas pressure springs, scratches, dents and other types of damage after cleaning the device. Immediately eliminate any faults that you detect. During maintenance and repair work, always fasten screw connections that have come loose. If safety equipment has to be dismantled during setup, maintenance or repairs, it must be reassembled and checked immediately after maintenance and repair work has been completed.

Before starting the device after making repairs, please check that all safety devices have been attached. Make sure that raw and auxiliary materials as well as replaceable items are disposed of safely and in an environmentally friendly manner. Use the device for its intended purpose only. Only the manufacturer has the right to make alterations. Interventions or modifications to the device lead to a loss of warranty!

9. Improper Use



Do not use the devices for non-operating purposes. Safety and protection devices and controllers must not be adjusted or rendered inoperative. Interventions or modifications must not be made to the device.



Ventilation slots must not be covered or blocked.



Liquids must not be filled into the tub of the device. The device is not suitable for cooking or preparing food. The storage of food over a longer period than the usual time frame for immediate sale of about 3 hours is not intended. If other than the indicated presentation containers or trays are used for the presentation of goods, this change is considered as improper use.

10. Safety Guidelines

We have complied with all safety regulations, in particular the VDE (Association of German Electricians) and international EEC directives, in manufacturing your appliance.

Before leaving the factory, your appliance passed through a final inspection in which all electrical parts were checked to ensure they were in proper working order.

Protection against accidental contact in accordance with VDE regulations must be guaranteed by proper installation.

For the installation and operation, the country-specific regulations must be observed.

11. Basic Safety Instructions

Obligations of the operator

Operator

The operator is the person who operates the device for commercial or economic purposes or provides it to a third party for use / application and bears legal responsibility for the device (device responsibility) and for the protection of the user, the personnel or third parties during operation.

Operator obligations

The device is used in the commercial sector. The operator of the device is therefore subject to the legal obligations concerning occupational safety. Besides the safety instructions in this manual, the safety and accident prevention regulations and the environmental protection regulations for the application range of the device must be observed.

Therefore, the following applies in particular:

- The operator must inform himself about the valid health and safety regulations and, in addition, carry out a risk assessment to determine the hazards, which result from the particular working conditions at the location in which the device is used. He must implement these results in the form of operating instructions for the operation of the device.
- The operator must check during the complete duration of use of the device whether the operating instructions created by him correspond with the current status of the regulations and must adapt these if necessary.
- The operator must clearly regulate and determine the responsibilities for installation, operation, troubleshooting, maintenance and cleaning.
- The operator must make sure that all employees who handle the device have read and understood this operating instruction.
In addition, he must train the personnel at regular intervals, but at least annually, in how to deal with the device and inform them about potential hazards.
- The operator must provide the personnel with the necessary protective equipment and must obligatorily instruct the wearing of the necessary protective equipment. Furthermore, the operator is responsible for ensuring that the device is always in perfect technical condition. Therefore, the following applies:
 - The operator must make sure that the maintenance intervals described in this manual are observed.
 - The operator must arrange for all safety devices to be checked regularly for functionality and completeness.
 - The operator must make sure that the appropriate media connections are available.
 - The operator must make sure that on-site safety-relevant measures are carried out.

Note: "Obligations of the staff"

The safe operation requires professional qualifications and the personal suitability of each person.

The organisational responsibility bears the "work supervisor" (operator). According to EN 50110-1, "a work supervisor is a person who is designated to bear the immediate responsibility for carrying out the work. If necessary, this responsibility may be partly transferred to other persons".

- The work supervisor must inform all persons involved in the work about all dangers that are not readily apparent to them.
- For the execution of the work only "instructed persons" are allowed, who are trained. Training and instruction must be repeated and the understanding must be checked, at best, in the form of a test.
- For repair work, only "specialists" are allowed. According to IEC 60204-1, specialists are "persons who, due to their relevant training and experience, are capable of identifying risks and avoiding potential hazards".
- Electrical work should only be carried out by a trained and experienced electrician, colloquially called an electrician. The cooperation of a person trained in electrical engineering is only permitted under the guidance and supervision of the qualified electrician.

Note: "Protective equipment for the staff"

- Make sure that the staff members wear the personal protective equipment that is appropriate in the respective situation.
- Wear sturdy footwear to avoid injury.
- Wear protective gloves to avoid burns on your hands and arms.

12. Dealing with Malfunctions

How to behave in case of malfunctions:

Notwithstanding the following instructions, local safety requirements apply for operating the device.



In the event of malfunctions, switch the device off immediately and disconnect the mains plug or remove the series fuse. Do not start the appliance again until after the malfunction has been fixed. Only authorised technicians may carry out electrical repairs. Use only spare parts that can be obtained from the manufacturer.

Before requesting customer support, please check the following:

Problem: The device is not warming up

- Was the power supply interrupted?
- Has the fuse failed?
- Is the earthed plug secure in its outlet?
- Has the device been switched on?
- Is the temperature adjusted too low?

Problem: The device is not warm enough

- Have you heated it for the right amount of time (about 30 – 45 minutes)?
- Is the temperature adjusted too low?

Problem: The goods are not warm enough

- Have the goods, which are placed on the hotplate, a temperature of at least 80 °C?
- Have you heated the device for the right amount of time (about 30 – 45 minutes)?
- Are there air flows in the room (ventilation, draught ...)?
- Is the room temperature below 23 °C?
- Is the temperature adjusted too low?

13. Instructions for Particular Types of Hazards



Electric Power

In the event of disturbances in the electric power supply, switch the appliance off immediately. Work on electrical equipment may only be carried out by a qualified electrician or trainees under the supervision of an electrician in accordance with the electrotechnical regulations. Equipment and parts on which inspection, maintenance and repair work is performed must be fully shut down. Firstly, check the disconnected parts to ensure they are isolated from the power supply, then earth and short-circuit them. Insulate adjacent live parts. The electrical equipment of a device must be checked regularly. Defects such as loose connections or heat-damaged cables must be repaired. Only use insulated tools.



High Temperatures

Caution, risk of burns!

The inner surfaces of the device are very hot. High temperatures can also occur on the outer panels. These areas must not be touched.

Easily flammable objects or liquids should not be stored in the area of the hotplate and the heated tub.

Noise Level

The work-related emission value of the noise level is less than 70 dB(A).

This information is required by certain national safety ordinances.

14. Maintenance Instructions

Maintenance interval: Snack-Counter HOT

Daily	Clean the device once a day, depending on the operating conditions
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15. Transport

The transport requires a careful and foresighted handling of the device.

It is absolutely necessary to observe the following instructions, because we take no responsibility for any transport damages caused by non-observance of this regulation.

General information:

- The devices may only be transported in the intended installation position.
- The housing must not be loaded to prevent it from being pushed in.
- The covers and doors must always be closed properly during transport.
- The device must be protected against rain, moisture and other atmospheric influences.

16. EU Declaration of Conformity

We hereby declare that the machine described below conforms to the relevant fundamental safety and health requirements of the EU directive, based on its design and construction and on the version marketed by us. This declaration shall become invalid if the machine is subject to alterations and when connecting on-site components that we have not agreed to.

Appliance Name:

Heated Display Case
SNACK-COUNTER HOT

Relevant EU Directives:

Machinery Directive (2006/42/EC)
Low Voltage Directive (2014/35/EU)
Electromagnetic Compatibility Directive (2014/30/EU)
RoHS Directive (2011/65/EU)
WEEE Directive (2012/19/EU)

Standards applied include in particular:

DIN-EN 60335-1: 2012
DIN-EN 60335-2-49: 2013
DIN-EN 55014-1: 2012
DIN-EN 55014-2: 2016
DIN-EN 61000-3-2: 2015
DIN-EN 61000-3-3: 2014

This declaration does not include an assurance of properties. The safety instructions of the product must be observed.

Date: 30.11.2020

Signature:

Dipl.-Ing. Edgar Hakemann
Technical Director

Appendix A1: Taking Delivery, Installing and Connection of the Appliance

A1.1 Taking Delivery of the Appliance

Please check the appliance for transport damage.

The appliance is transported at your own risk. You will not be able to claim a refund if you do not report transport damage within a reasonable period of time.

If you discover a defect, please note this on the carrier's papers and on your form then have it confirmed by a third party.

There will be no replacement for transport damage not properly detected or that is reported after a delay.

The delivered item should therefore be unpacked immediately and checked to ensure that it is in good condition and in working order, even if it has been packed perfectly.



If a defect is discovered, the last transport company to handle the appliance must immediately be notified in writing of its liability. We also ask that you telephone us to report the extent of the damage. As a service to you, we would then file an insurance claim for the damage. Devices, delivered with obvious defects, must not be installed. In case of installation of such a device, the asserting is excluded from warranty claims.

A1.2 Disposal of Packaging

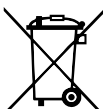
Our appliances are covered with a plastic protective film to cover their surfaces. Do not leave the plastic protective film on the device for any longer than necessary. The film can be hardened by sunlight, making it difficult to remove.

The recyclable packaging materials have a label with a recycling symbol. They should be set aside and taken to a local recycling collection centre.

A1.3 Disposal of the Old Appliance

Before being discarded, appliances should be switched off while the mains cable is cut off.

Wear protective gloves when disposing of damaged parts / components. Make sure that the device and the damaged parts / components are disposed of properly and in an environmentally friendly manner.



Please note that some of the components of the device are electronic parts. Disposal via public waste disposal companies is there not possible. Check your obligations according to the national WEEE directives (Waste of Electrical and Electronic Equipment). A sorted disposal is necessary in any case.

A1.4 Site

Easily flammable objects must not be present at the installation site in close proximity to the device. The temperatures at the installation site should not be less than 18 °C. Installation locations with draughts should be avoided.



If the device is used close to cooling units, a distance of at least 100 mm is to be kept. An air exchange between the devices must be prevented.

Avoid the installation in the immediate vicinity of strong magnetic or electromagnetic fields, transmitting antennas or high-frequency generators. As a result, the control electronics can be influenced.

A1.5 Installing the Appliance

The device is inserted in a recess provided for it in the worktop. Please ensure that your counter design has an adequate load capacity.



The area below the device must not be covered. In order to avoid damage from overheating below the device, the air must be able to circulate freely outwards in this area.

The outside surfaces of the device may get hot. When installing, make sure that a sufficient distance is kept to heat-sensitive surfaces and combustible parts.



The device must be installed so that it is easily accessible for maintenance and repair work and is also removable if required.

Please note, that the bottom plate of the device must be removable downwards for repair work. If there is no access possible from below, the device must be removed out of the counter area for maintenance or repair work.

A1.6 Connecting the Ready-to-Use Device



Before electrical connection, please consider the data on the identification plate.

Pay attention to VDE (Association of German Electricians) regulations and regulations of the local energy supply company and to country-specific regulations. The device must be grounded properly in accordance with the VDE regulations or the local regulations. The connection may be made only by authorised specialists.

The appliance is delivered ready for use with a 1.5 m long connecting cable. The cable may only be connected via an earthed plug to an AC network with a nominal voltage of 230 V and a 50 Hz frequency. In appliances with a connected load less than 2 kW, the electric power supply line should be fused with 10 A (slow-blow), while it should be fused with 16 A (slow-blow) in devices with a higher connected load.

The mains plug must be accessible after installation of the device.

During cleaning and maintenance, the person operating the device must be able to check, from every place to which he has access, that the plug is still pulled.



If the mains power cable of this device is damaged, it must be replaced by the manufacturer or its customer service or by a similarly qualified person in order to avoid hazards.

The devices with a 400 V connection are supplied without connector plug. The connection must be carried out in accordance with the wiring diagram.

For operation, the assigned on-site electrical connection point (mains socket, connection box) must be protected by a residual current circuit breaker with a rated residual current of 30 mA.

Do not connect the appliance to another voltage, kind of current or frequency. A qualified electrician should install the earthed wall outlet. Country-specific regulations should be complied with.

A1.7 Settings

The parameters are subdivided into different control levels.

Various parameters can be altered for adjusting sensor calibration, remote enquiry, etc. However, these adjustments should be only carried out by a dealer or repair service.

Control level 1

These parameters are callable by the final user.

Control level 2

These parameters are callable by the local customer service.

The password for the entry is “-19”.

Control level 1

To activate parameterisation mode for control level 1, press buttons ▲ and ▼ at the same time for at least 1 second. Press button ▲ or ▼ to scroll to the next parameter.

By pressing the button SET, the parameter value is displayed and by additional pressing the button ▲ or ▼ at the same time, the parameter value can be adjusted. The parameterisation can also be performed in standby mode.

Level 1

Parameter	Description of Function	Setting Range	Standard Value	Device Value
H11	Actual value sensor 1	Measured value, not adjustable		
H21	Actual value sensor 2	Measured value, not adjustable		
PA	Password entry for next level			

Control level 2

The access to the second control level is granted by selecting parameter PA in the first control level.

For parameter PA, the numerical number “-19” must be set.

Use the button ▲ and ▼ to scroll to the next parameter. By pressing the button SET, the parameter value is displayed and by additional pressing of the button ▲ or ▼ at the same time, the parameter value can be adjusted. When releasing the button SET, the adjusted parameter value is stored.

The return to the initial state takes place automatically, if no button is pressed for 45 seconds or by pressing the buttons ▲ and ▼ at the same time for about 4 seconds.

Level 2

Parameter	Description of Function	Setting Range	Standard Value	Device Value
A1	Alarm: upper limit value	0.0: inactive +0.1 ... +150 °C	5	
A2	Alarm: lower limit value	-50.0 ... -0.1 °C 0.0: inactive	-6	
A4	Switching hysteresis for alarm	0.1 ... 15.0 K	1 K	
A10	Alarm suppression time after temperature alarm	0 ... 240 min.	10	
A12	Alarm suppression time after controller ON	0 ... 300 min.	60	
A14	Behaviour if temperature alarm disappears again	0: without buzzer, delete automatically 1: with buzzer, delete automatically 2: without buzzer, with acknowledgement 3: with buzzer, with acknowledgement	1	
A15	Function buzzer and/or display in the case of an alarm	0: no display, no buzzer 1: display flashing only 2: buzzer active only 3: display flashing, buzzer active 4: like 2., can be acknowledged 5: like 3., buzzer can be acknowledged 6: like 5., recurring after A16	5	
A16	Buzzer recurring after acknowledgement	1 ... 120 min.	15	

Parameter	Description of Function	Setting Range	Standard Value	Device Value
b4	Function button D	0: without function 4: relay function A (light 1), not active in standby 5: relay function A (light 1) regardless of standby 6: relay function B (light 2) not active in standby 7: relay function B (light 2) regardless of standby 101: relay function A (light 1) function active if device is turned on, function not active if device is turned off	0	
b6	Function button F	see b4	101	
c1	Setpoint for Set 1	30 ... 100 °C	65 °C	
c5	Control circuit: hysteresis	0.1 ... 15.0 °C	2 K	
c7	Upper setpoint limit	c8 ... +999 °C	90 °C <u>if open and without intermediate level:</u> 110 °C	
c8	Lower setpoint limit	-99°C ... c7	30 °C	
c12	Start protection compressor after mains ON	0 ... 60 min.	0 min.	
H12	Calibration sensor F1 (actual value correction)	-20 ... +20 K	0.0 K	
H22	Calibration sensor F2 (actual value correction)	-20 ... +20°C	0.0 K	
L0	Own address RS485-Bus	0: deactivated 1 ... 250	1	
L6	Software version	Display value, software version		
L7	Display in standby mode	0: OFF 1: AUS 2: right decimal point 3: right decimal point flashing	3	
L12	Software revision	Read-only	1	
L20	Bus system	0 – bus system deactivated 1 – WIHA ST-Bus	1	
L40	Mask on enabled functions	Here, you can specify the functions enabled via the bus. Bit 0 – controller on Bit 1 – circuit 1 on	1	
L41	Mask on enabled functions	Here, you can specify the functions enabled via the bus. Bit 1 – function A, light 1	2	

Parameter	Description of Function	Setting Range	Standard Value	Device Value
o1	Temperature offset lower hotplate	<u>For closed display cases or open display cases with intermediate level:</u> Temperature offset lower hotplate, that means that the lower hotplate is hotter by this temperature than the adjusted setpoint temperature. <i>Note:</i> With the button SET, the setpoint value for the interior space of the display case is set.	+15 °C	
	Temperature offset upper heat radiator	<u>For open display cases without intermediate level:</u> Temperature offset upper heat radiator, that means that the upper heat radiator is hotter by this temperature (or colder) than the adjusted setpoint temperature. <i>Note:</i> With the button SET, the setpoint value for the hotplate is set.	-15 °C	
U4	Function relay 4	0: no function (off) 8: relay function A: (light 1) 9: relay function B: (light 2)	9	
U25	Function LED D	see U4	0	
U26	Function LED E	see U4	9	
U27	Function LED F	see U4	8	

A1.8 Status Displays and Error Messages

Message	Cause	Remedy
Hi	Overtemperature, temperature above the alarm limit of parameter A1	Check device, adapt alarm limits
Lo	Undertemperature, temperature below the alarm limit of parameter A2	Check device, adapt alarm limits
E1L	Error on sensor F1, short-circuit	Check sensor F1
E1H	Error on sensor F1, wire broken	Check sensor F1
E2L	Error on sensor F2, short-circuit	Check sensor F2
E2H	Error on sensor F2, wire broken	Check sensor F2
-Er	Numerical value cannot be shown in the display or is invalid	
EP0	Internal error in the flash of the control unit (external overvoltage, or the like)	Repair control unit

If there are several error messages at the same time, the errors and the current temperature will be displayed alternately. The error messages are reset with the button "STANDBY". Precondition is, however, that the cause of the error has been eliminated.

A1.9 Technical Data

When connecting on-site electrical components, the relevant EU directives must be confirmed again.

General

Minimal ambient temperature: 23 °C

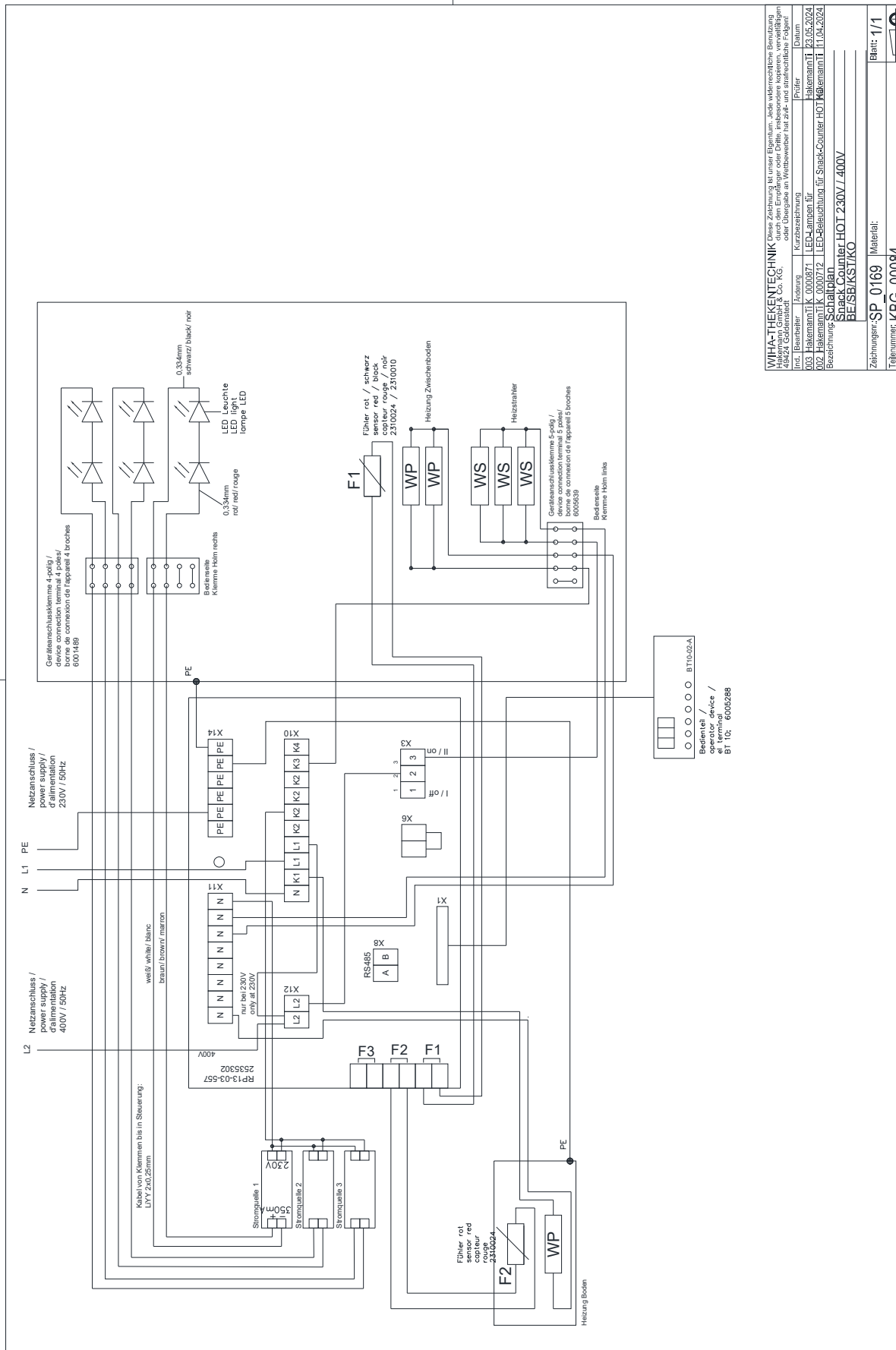
Setting range temperature: approx. 30 °C – approx. 90 °C

Connection

Models: BE, SB, KST Size	Voltage	Power
HOT 520 - 1.5, one intermediate level	230 V	1.0 kW
HOT 520 - 2, one intermediate level	230 V	1.25 kW
HOT 520 - 3, one intermediate level	230 V	1.75 kW
HOT 520 - 4, one intermediate level	230 V	2.20 kW
HOT 710 - 1.5, one intermediate level	230 V	1.0 kW
HOT 710 - 2, one intermediate level	230 V	1.25 kW
HOT 710 - 3, one intermediate level	230 V	1.75 kW
HOT 710 - 4, one intermediate level	230 V	2.20 kW
HOT 710 - 1.5, two intermediate levels	230 V	1.30 kW
HOT 710 - 2, two intermediate levels	230 V	1.65 kW
HOT 710 - 3, two intermediate levels	230 V	2.25 kW
HOT 710 - 4, two intermediate levels	230 V	2.90 kW

Models: BO, KO Size	Voltage	Power
HOT 520 - 1.5, one intermediate level	230 V	1.65 kW
HOT 520 - 2, one intermediate level	230 V	2.05 kW
HOT 520 - 3, one intermediate level	230 V	2.85 kW
HOT 520 - 4, one intermediate level	400 V, (L1, L2, N, PE)	3.75 kW
HOT 710 - 1.5, one intermediate level	230 V	1.65 kW
HOT 710 - 2, one intermediate level	230 V	2.05 kW
HOT 710 - 3, one intermediate level	230 V	2.85 kW
HOT 710 - 4, one intermediate level	400 V	3.75 kW
HOT 710 - 1.5, two intermediate levels	230 V	1.85 kW
HOT 710 - 2, two intermediate levels	230 V	2.3 kW
HOT 710 - 3, two intermediate levels	400 V, (L1, L2, N, PE)	2.9 kW
HOT 710 - 4, two intermediate levels	400 V, (L1, L2, N, PE)	4.25 kW

A1.10 Wiring Diagram



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Zeichnung:	SP 0169
Material:	
Blatt:	1/1
Teilnummer:	KBG 00084