

# Instruction manual



**Cooling display 8 x GN 1/4  
MCH 4180**

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## 1. DECLARATION OF CONFORMITY

Decree of the Ministry of Health of the Czech Republic no. 38/2001 Coll. of 19 January 2001 Regulation (EC) No 1907/2006 - Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation of the European Parliament and Council Regulation (EC) no. 1935/2004 of 27 October 2004

The products meet the requirements of §26 of Act No.258/2000 as amended. The products meet the requirements of RoHS Directive 2015/863/EU, 10/2011, 517/2014, 2015/1094, 2015/1095.

Attention, the manufacturer gives up any responsibility in case of direct and indirect damage that is relate to poor installation, incorrect intervention or adjustments, insufficient maintenance, incorrect by using and which are eventually caused by other causes that the points referred to in the conditions sales. This appliance is intended only for professional use and must be operated by qualified by persons. Parts that have been secured by the manufacturer or authorized worker after the setting rebuild.

## 2. TECHNICAL DATA

The label with technical data is located on the side or back panel of the device. Please read the wiring diagram and all the following information in the attached manual before installation.

Net Width [mm]	Net Depth [mm]	Net Height [mm]	Net Weight [kg]	Power electric [kW]	Loading
1800	440	440	52.00	0.180	230 V / 1N - 50 Hz

## 3. LOCATION ELECTRIC

For the correct operation and placement of the appliance, it is necessary to observe the following all prescribed standards for the given market. Unpack the device and check that the device has not been damaged during transport. Place the device on a horizontal surface (maximum unevenness up to 2°). Small unevenness can be leveled with adjustable feet. If the device will be placed in such a way that it will be in contact with the walls of the furniture, these must withstand a temperature of up to 60°C. Installation, adjustment, commissioning must be performed by a qualified person who is authorized to perform such operations, according to applicable standards. The device can be installed separately or in series with devices of our production. A minimum distance of 10 cm from flammable materials must be observed. In this case, it is necessary to secure the appropriate modifications to ensure the thermal insulation of the combustible parts. The appliance must only be installed on a non-flammable surface or against a non-flammable wall. **Parts of the appliance provided by the manufacturer, or his representative, the worker performing the installation may not rebuild the product.**

## 4. SAFETY MEASURES FOR FIRE PROTECTION

- the appliance may only be operated by adults
- the appliance may be used safely in accordance with applicable market standards:

Fire protection in spaces with special risk or danger

Protection against the effects of heat

- the appliance must be placed so that it stands or hangs firmly on a non-combustible surface

Objects of flammable substances must not be placed on the appliance at a distance less than a safe distance from it (the smallest distance between the appliance and flammable substances is 10 cm).

Table: degree of flammability of building materials included in st. flammability of substances and products

Degree of flammability	Building materials
A - non-flammable	granite, sandstone, concrete, brick, ceramic tiles, plaster
B - Not easily flammable	Acumin, Heraclitus, Lihnos, Itaver
C1 - highly flammable	wood, hardwood, plywood, hard paper, umakart
C2 - moderately flammable	chipboards, solodur, cork boards, rubber, flooring
C3 - Highly flammable	wood fiber boards, polystyrene, polyurethane, PVC

- information on the degree of flammability of common building materials is given in the table above. Appliances must be installed in a safe manner. During installation, the relevant design, safety and hygiene regulations must also be respected:
- fire safety of local appliances and heat sources
- fire protection in areas with special risk or danger
- protection against the effects of heat

## 5. INSTALLATION

**Important:** The manufacturer does not provide any warranty for defects arising as a result of incorrect use, failure to follow the instructions contained in the attached user manual and mishandling of appliances. Installation, modification and repair of appliances for large kitchens, as well as their dismantling due to possible damage to the gas supply, can only be carried out on the basis of a maintenance contract, this contract can be concluded with an authorized dealer, while technical regulations and standards and regulations must be observed regarding installation, electrical supply, gas connection and work safety. Technical instructions for installation and adjustment, for use by specialized technicians ONLY. The instructions that follow refer to a technician qualified for installation to carry out all operations in the most correct manner and according to the applicable standards. Any activity related to regulation etc. must only be performed with the device disconnected from the network. If it is necessary to keep the appliance under voltage, the utmost care must be taken. The type of appliance for extraction is declared on the nameplate, it is an A1 appliance.

## 6. CONNECTING THE ELECTRICAL CABLE TO THE NETWORK

Installation of the electrical supply - this supply must be separately secured. At with the corresponding circuit breaker of rated current depending on the power input of the installed device. Check the power consumption of the device on the production label on the back panel (or side) of the device. The connected ground wire must be longer than the other wires. Connect the device directly to the network, it is necessary to insert a switch between the device and the device with a minimum distance of 3 mm between the individual contacts, which corresponds to the applicable standards and load. The earth supply (yellow-green) must not be interrupted by this switch. Connect the device to the mains if the socket has adequate protection. In any case, the supply cable must be located so that it does not reach a temperature of 50 degrees higher than the environment at any point. Before the appliance is connected to the network, it is necessary to first make sure that:

- the supply circuit breaker and the internal distribution can withstand the current load of the appliance (see matrix label)
- the distribution board is equipped with effective grounding according to the standards of the relevant market and the conditions given by law
- the socket or switch in the supply is easily accessible from the appliance
- the electrical supply to the device must be made of oil-resistant material

**We disclaim any responsibility in the event that these standards are not respected and in the event of a violation of the above principles. Before first use, you must clean the device, see chapter """""cleaning and maintenance""""". The appliance must be grounded using a screw with a grounding mark.**

- Do not insert the plug of the power supply into the electrical outlet. sockets and do not pull out the zel. sockets with wet hands and pulling on the power cord!
- Do not use extension cords or multiple sockets.
- **The mains connection point must have a maximum of the following impedance:  $Z_{MAX} = 0.042 + j 0.026 \Omega$  for the phase conductors and  $0.028 + j 0.017 \Omega$  for the neutral conductor.**

Product type	External dimensions (mm)	Capacity	Tension (V/Hz)	Performance (W)	Weight (kg)	Refrigerant
MCH 4120	1200 x 335 x 440	5 x GN 1/4	230 / 50-60	0.125	39	R290

MCH 4140	1400 x 335 x 440	6 x GN 1/4	230 / 50-60	0.125	43	R290
MCH 4150	1500 x 335 x 440	7 x GN 1/4	230 / 50-60	0.125	44	R290
MCH 4160	1600 x 335 x 440	7 x GN 1/4	230 / 50-60	0.125	45	R290
MCH 4180	1800 x 335 x 440	8 x GN 1/4	230 / 50-60	0.18	52	R290
MCH 4200	2000 x 335 x 440	10 x GN 1/4	230 / 50-60	0.18	57	R290
MCH 3120	1200 x 395 x 440	1x GN 1/2 + 3x GN 1/3	230 / 50-60	0.125	42	R290
MCH 3140	1400 x 395 x 440	1x GN 1/2 + 4x GN 1/3	230 / 50-60	0.125	45	R290
MCH 3150	1500 x 395 x 440	1x GN 1/2 + 5x GN 1/3	230 / 50-60	0.125	49	R290
MCH 3160	1600 x 395 x 440	7x GN 1/3	230 / 50-60	0.18	51	R290
MCH 3180	1800 x 395 x 440	8x GN 1/3	230 / 50-60	0.18	55	R290

### Connecting the power cable to the mains

Installation of electrical connection – this connection must be secured separately. This must be done using a circuit breaker with a rated current corresponding to the power consumption of the installed device. Check the power consumption of the device on the manufacturer's label on the side of the device.

The connected earth conductor must be longer than the other conductors. Connect the appliance directly to the mains; it is necessary to insert a mains switch between the appliance and the mains with a minimum distance of 3 mm between the individual contacts, which complies with applicable standards and loads. The earthed conductor (yellow-green) must not be interrupted by this connector. Connect the appliance to the mains if the socket has an appropriate fuse.

In any case, the power cable must be positioned so that it does not reach a temperature 50 degrees higher than the average temperature at any point. Before connecting the appliance to the mains, it is necessary to first ensure that:

- The main circuit breaker and internal wiring can handle the current load of the appliance (see matrix label).
- The distribution system is equipped with effective earthing in accordance with standards (ČSN) and conditions stipulated by law.
- The socket or switch in the power supply is easily accessible from the appliance.

We accept no responsibility in the event that these standards are not respected and in the event of a breach of the above principles.

Before using the appliance for the first time, you must clean it; see the section entitled "Cleaning and maintenance". The appliance must be earthed.

help with a screw marked "grounded".

## INSTALLATION

Technical instructions for installation and regulation.

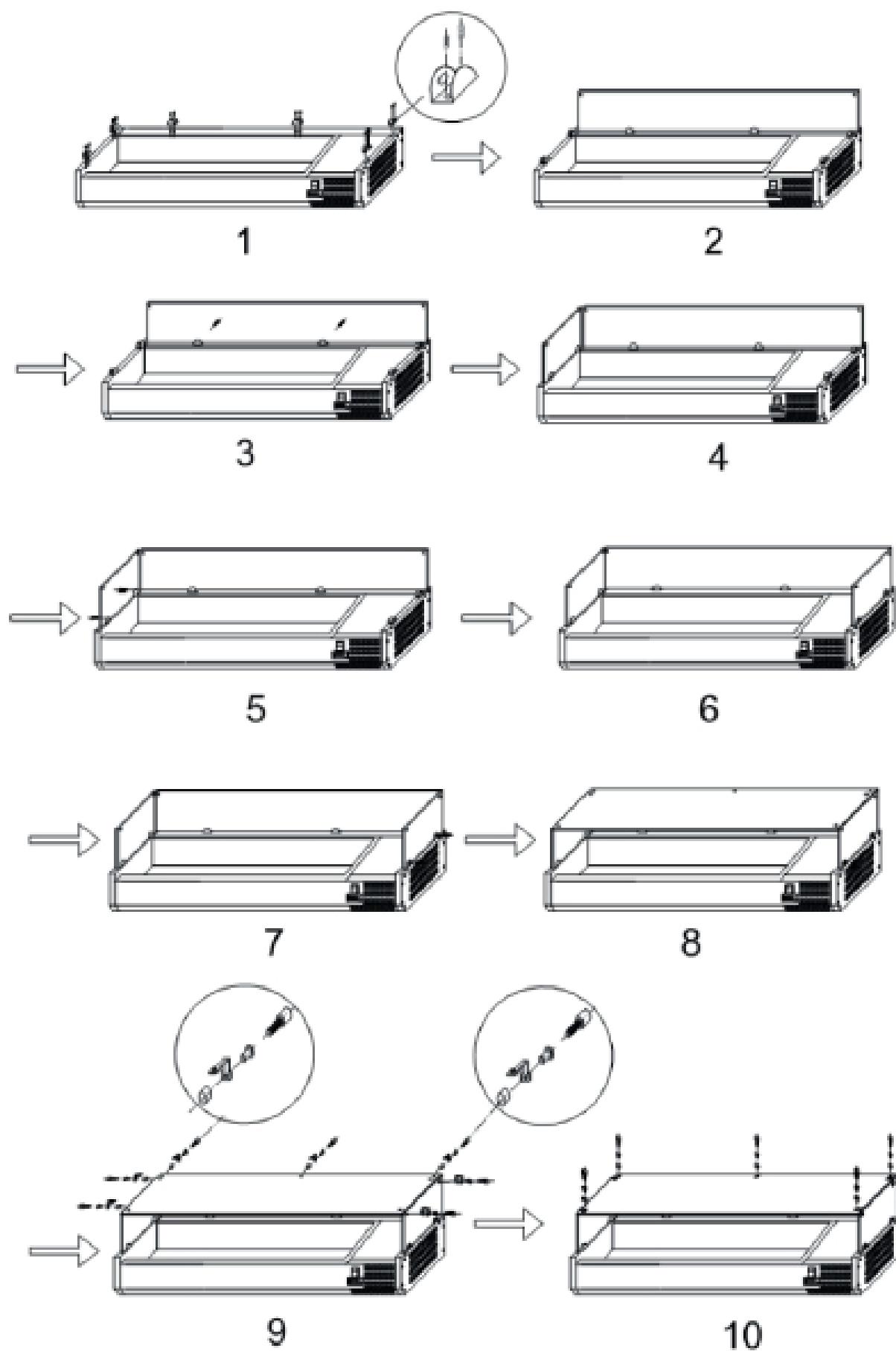
For use ONLY by specialised technicians.

The following instructions are intended for a technician qualified to perform the installation, so that all operations are carried out correctly and in accordance with current standards.

Any work related to regulation, etc., must only be carried out with the appliance disconnected from the

mains. If it is necessary to keep the appliance energised, extreme caution must be exercised.

## Guide to installing a glass panel



## INSTALLATION INSTRUCTIONS FOR VITRINKS

**Important:**

The manufacturer does not provide any warranty for defects resulting from improper use, failure to follow the instructions contained in the User Manual, or mishandling of the appliances.

**INSTALLATION:**

The installation, modification and repair of appliances for commercial kitchens, as well as their dismantling, may only be carried out on the basis of a maintenance contract. This contract may be concluded with an authorised dealer, whereby technical regulations and standards and regulations relating to installation, electrical connections, gas connections and work safety must be observed.

Ventilation of the room in which the appliance is installed must comply with applicable standards and regulations. The appliance may be installed separately or in series with other appliances. A minimum distance of 10 cm from the appliance must be maintained to prevent possible contact with walls made of combustible materials.

We also recommend that appropriate measures be taken to ensure thermal insulation of combustible parts, e.g. by installing protective elements against fire. of combustible parts, e.g. by installing protective elements against fire. It is also necessary to install appliances safely. The feet can be adjusted to compensate for any unevenness and differences.

## **7. INSTRUCTIONS FOR USE**

**Caution!** Before using the appliance, remove the protective film from the entire surface, then wash it thoroughly with water and washing-up liquid and wipe with a damp cloth.

The cooling unit must be assembled from the supplied parts. Cutlery is not included in the delivery and must be ordered separately!

Connect the refrigerated counter or display case to the mains and switch on the main switch. To set the parameters, carefully read the instructions in the manual.

### Dixell control panel

The Dixell model, measuring 32 × 74 mm, is equipped with microprocessor controllers a microprocessor, particularly suitable for applications at normal temperatures. It is equipped with a relay output for compressor control and an input for a PTC or NTC temperature sensor. The device also has a digital input for alarm signalling or defrosting. The device can be fully configured using special parameters that can be easily programmed via the keypad.

### Compressor

Regulation is performed according to the temperature measured by the thermostat sensor with a positive deviation from the desired value.

The compressor starts when the temperature rises above the sum of the desired value and hysteresis. When the temperature drops to the desired value, the compressor switches off again. In the event of a thermostat sensor failure, the start and stop times of the compressor are determined by the "COn" and

"COF" parameters.

Defrosted

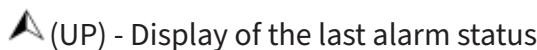
Defrosting is performed by simply stopping the compressor. The "ldF" parameter controls the interval between defrost cycles, and the "MdF" parameter controls the length of the defrosting period.

Front panel controls

SET - Displays the desired values. In programming mode, it is used to select a parameter or confirm an operation.

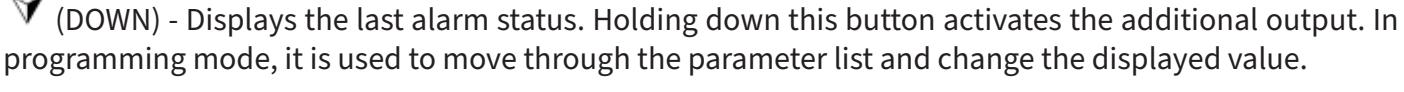


(DEF) - Start of manual defrosting



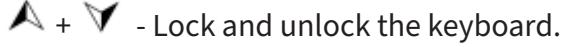
(UP) - Display of the last alarm status

In programming mode, it is used to move through the parameter list and to enlarge the displayed value.



(DOWN) - Displays the last alarm status. Holding down this button activates the additional output. In programming mode, it is used to move through the parameter list and change the displayed value.

Key combinations



SET + (UP) - Lock and unlock the keyboard.

SET + (DOWN) - Enter programming mode.

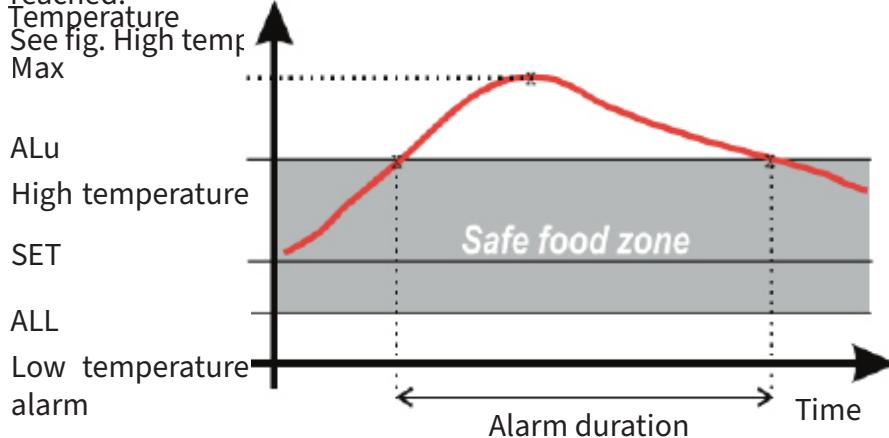
SET + (UP) - Return to the display of the room temperature value.

The functions of the indicator lights are described in the table below:

LED	REGIME	FUNCTIONS
	ON	Compressor in operation
	Flashing	Programming mode ( ) Released delayed for minimum cycle
	ON	The process is underway.
	Flashing	Programming mode ( )
	ON	Temperature alarm

## RECORDING OF TEMPERATURE ALARMS (HACCP FUNCTION)

The XR20C controller signals and records temperature alarms, their duration and the maximum temperature reached.



Dixell control panel



Display of alarm, duration and maximum/minimum temperatures reached

If the alarm indicator light  is lit, an alarm has been recorded. To display the type of alarm, the maximum and minimum temperatures reached, and the duration of the alarm, proceed as follows:

1. Press the button  or 
2. The display shows the message: "HAL" for upper temperature alarm or "LAL" for lower temperature alarm, followed by the maximum (minimum) temperature reached. Then the message "tiM" (tiMe) will appear, followed by the duration in hours and minutes.
3. The device will then display the measured temperature.

Note: If the alarm continues, the parameter "tiM" displays the partial duration.

Note: The alarm is recorded when the temperature returns to normal values.

Deleting a recorded alarm or an alarm that is still active

1. In alarm review mode, press and hold the SET button for more than 3 seconds until the recorded alarm is displayed (the rSt message appears).
2. Confirm the operation and the rSt indicator will start flashing. The measured temperature will be displayed.

## MAIN FUNCTIONS

Displaying data on the requested value

1. Briefly press the SET button and the desired value will appear on the display.
2. To return to the current temperature, briefly press SET again or wait 5 seconds.

Change in desired value

1. Press and hold the SET button for more than 2 seconds.
2. The desired value will be displayed and the indicator light will start flashing.

3. The set value can be changed by pressing the  or  buttons (within 10 seconds).
4. The newly set value can be saved by pressing the SET button again or automatically after 10 seconds.

#### Start of manual thawing

Press and hold the DEF button for more than 2 seconds.

#### Changing the value of any parameter

1. Press and hold the SET and  buttons simultaneously for 3 seconds to switch the device to programming mode (the  and  indicators will start flashing).
2. Select the desired parameter.
3. Press the SET button to display the current value (only the indicator light  flashes).
4. Use the  or  buttons to set the desired value.
5. Press the SET button to save the value and move on to the next parameter.

To exit: Press the SET and  buttons simultaneously, or wait 15 seconds.

NOTE: The new value will be saved in both cases.

The hidden menu contains all the device parameters.

#### Accessing the hidden menu

1. Enter programming mode by pressing the SET and  buttons for 3 seconds (the  and  indicator lights will begin to flash).
2. When the parameter appears on the display, press and hold the SET and  buttons for 7 seconds. The Pr 2 heading is displayed, followed immediately by the Hy parameter. You are now in the hidden menu.
3. Select the desired parameter.
4. Press the SET button to display its value. ( will now flash).
5. You can change this value using the  or  buttons.
6. Press the SET button to save the new value in the memory and move on to the next parameter.

 End: Press the SET + buttons or wait for 15 seconds.

#### How to move a parameter from a hidden menu to the first-level list and vice versa

Each parameter located in the HIDDEN MENU can be deleted or moved to the "FIRST LEVEL" list (user list) by pressing the SET and  buttons.

If the parameter is from the HIDDEN MENU in the first-level list, the decimal point is enabled.

## Locked keyboard

1. Press and hold the  and  buttons simultaneously for at least 3 seconds.
2. The POF message appears and the keypad is locked. Now you can only monitor the setpoint or the min/max recorded temperature.
3. If any key is pressed for longer than 3 seconds, the message POF will appear.

## Re-unlocking the keypad

Press and hold the  and  buttons simultaneously for at least 3 seconds.

## Continuous cycle

If the defrost function is not active, pressing the button  for more than 3 seconds will start a continuous cycle.

The compressor will operate in a continuous cycle according to the "CCt" parameter. It can be stopped before the set time has elapsed by pressing the button.

## PARAMETERS

Note: Parameters written in italics are only available in the hidden menu.

## REGULATION

<b>Hy</b>	Hysteresis: (0.1 to 25.5 °C / 1 to 255 °F) Hysteresis of the control intervention for the desired value. The compressor starts when the temperature rises to the desired value plus hysteresis Hy. The compressor switches off when the temperature drops to the desired value.
<b>LS</b>	Minimum desired value: (-50 °C to SET; -58 °F to SET): Sets the minimum acceptable desired value.
<b>US</b>	Maximum setpoint: (SET up to 110 °C, SET up to 120 °F): Sets the maximum acceptable setpoint.
<b>Ot</b>	Calibration of the thermostat's spatial sensor: (-12 to 12 °C, -120 to 120 °F) Allows you to compensate for any offset of the thermostat sensor.
<b>Ods</b>	Delayed output activation after switching on the device: (0 to 255 min) This function is activated when the device is switched on and prevents the outputs from being activated for the period set by this parameter.
<b>AC</b>	Minimum compressor cycle: (0 to 50 min) Minimum interval between compressor shutdown and restart.
<b>CCt</b>	Compressor operating time – continuous cycle (fast freeze cycle): (0.0 – 24.0 hours, in 10-minute increments) Allows you to set the length of the continuous cycle: the compressor runs without interruption for the duration of CCt. Used, for example, when filling the space with new products.
<b>Con</b>	Compressor switch-on time in case of probe failure: (0 to 255 min) The time during which the compressor runs in case of a room sensor failure. When Con=0, the compressor is always running.
<b>COF</b>	Compressor shutdown in case of probe failure: (0 to 255 min) Time during which the compressor is switched off in case of a room sensor failure. When COF=0, the compressor is always running.
<b>CH</b>	Control type: CL = cooling, Ht = heating.

## DISPLAY, RESOLUTION

<b>CF</b>	Measurement units: °C=Celsius, °F=Fahrenheit WARNING: When changing measurement units, it is necessary to check and, if necessary, change the SET, Hy, LS, US, Ot, ALU, and ALL parameters.
<b>rES</b>	Resolution (°C): (in = 1 °C; dE = 0.1 °C) displayed decimal places.

## Thaw

<b>IdF</b>	Drain interval: (1 to 120 hours) Specifies the time interval between two drain cycle starts.
<b>MDF</b>	Maximum defrost time: (0 to 255 minutes) sets the maximum defrost duration.
<b>dFd</b>	Temperature displayed during defrosting: (rt = measured temperature; it = temperature at the start of defrosting; SEt = desired value; dEF = default "dEF").
<b>dAd</b>	Maximum display delay after defrosting: (0 to 255 minutes). Sets the maximum time between the end of defrosting and the start of actual temperatures.

## ALARMS

<b>ALC</b>	Alarm type setting: (Ab; rE) Ab = absolute temperature: the alarm temperature is set by the values ALL or ALU. rE = alarm temperature is related to the desired value. The alarm is activated when the temperature exceeds the "SET+ALU" or "SET-ALL" values.
<b>ALU</b>	Upper temperature limit for alarm: (SET to 110 °C, SET to 230 °F) When this temperature is reached, the alarm is activated after a delay of "ALd".
<b>ALL</b>	Lower temperature limit for alarm: (-50 °C to SET, -58 °F to SET) When this temperature is reached, the alarm is activated after the ALd delay.
<b>ALd</b>	Temperature alarm delay: (0 to 255 min) The interval between alarm detection and its signalling.
<b>dAO</b>	Delayed (disabled) alarm after switching on the device: (0 to 23.5 hours) The time after switching on the device when all temperature alarms are disabled.

## DIGITAL ACCESS

<b>i1P</b>	Digital input polarity: oP: digital input is activated by opening the contact; CL: digital input is activated by closing the contact.
<b>i1F</b>	Digital input configuration: EAL = external alarm: "EA" alert displayed; bAL = door contact: "CA" alarm is displayed; PAL = pressure switch: "CA" indicator appears; dEF = activation of the drain cycle; Lht = no function; Htr = mode switch (cooling – heating). AUS = not in operation
<b>did</b>	Digital input alarm delay: (0 to 255 min) delay between detection of an external alarm condition (i1F = EAL or i1F = bAL) and its signalling, delay door open signalling (i1F = dor) and time interval for counting pressure switch activations (i1F = PAL).
<b>nPS</b>	Number of pressure switch activations: (0 to 15) Number of pressure switch activations, in the interval did, before the alarm is triggered (i1F = PAL)
<b>odc</b>	Compressor and fan status when the door is open: no, Fan = normal, CPr, F_C = compressor switches off.
<b>PbC</b>	Sensor type: Allows you to set the sensor type: PtC = PTC; ntC = NTC.
<b>rEL</b>	Device software version.
<b>PtB</b>	Parameter table code: read-only.

## DIGITAL INPUTS

The digital contact can be programmed for five functions using the "i1F" parameter.

## SPÍNAČE DOOR ENTRY (I1F=DOR)

When the door position signal enters the device and according to the set value of the "odc" parameter, the relay outputs can be changed as follows:

Well, Fan = no impact on the compressor  
CPr, F\_C = compressor switches off

After the time interval (set by the "did" parameter) has elapsed, the alarm is activated when the door is opened, the message "dA" appears on the display and the control is restarted. The alarm is deactivated when the digital input is deactivated. When the door is opened, the upper and lower temperature alarms are blocked.

## GENERAL ALARM (I1F=EAL)

If the digital input is activated, the unit waits for the "did" interval before triggering the "EAL" alarm. The status of the outputs does not change; the alarm will be terminated as soon as the digital input is no longer activated.

#### SERIOUS ALARM (I1F=BAL)

If the digital input is activated, the unit waits for the "did" interval before the "CA" alarm is triggered. The output relay will disconnect and the alarm will be terminated as soon as the digital input is no longer activated.

#### PRESSURE SWITCH (I1F=PAL)

If, during the "did" time interval, the number of pressure switch activations reaches the "nPS" value, the "CA" message is displayed. The compressor will be switched off and the regulation process will stop.

When the digital input is active, the compressor is always switched off. If the number of activations in the interval is reached, switch the device off and on again and the control will restart.

#### SPUŠTĚNÍ ODTÁVÁNÍ (I1F=DFR)

When the conditions for starting are met, defrosting begins. Once defrosting is complete, normal control is only reactivated if the digital input is blocked. Otherwise, the device waits for the "Mdf" safety interval to elapse.

#### CHANGE OF ACTION HEATING & COOLING (I1F=HTR)

This function allows you to change the controller's action from cooling to heating and vice versa.

#### POLARITY OF DIGITAL INPUTS

The polarity of digital inputs depends on the "I1P" parameters:

CL = digital input is activated when the contact is closed

OP = digital input is activated when the contact is opened

#### INSTALLATION AND ASSEMBLY

The control panel is mounted in a cut-out hole measuring 29x71 mm and secured using a special clamp, which is included in the delivery. To achieve IP65 protection, use an RG-C seal under the front panel. The permitted operating ambient temperature range for trouble-free operation is 0 to 60 °C.

Do not place the device in areas subject to strong vibrations, corrosive gases, excessive dirt or moisture. The same recommendation applies to the use of sensors. Ensure free air flow around the cooling vents.

#### ELECTRICAL CONNECTION

The units are equipped with screw terminal blocks that allow the connection of wires with a cross-section of up to 2.5 mm<sup>2</sup>.

Before connecting the wires, ensure that the supply voltage corresponds to the unit settings. Keep the sensor cables separate from the power cables, cables to controlled appliances and power cables. Ensure that the maximum permissible load of the relay is not exceeded. If a more powerful connection is required, use a suitable external relay.

## CONNECTED SENSORS

The sensor must be installed with the tip facing upwards to prevent damage caused by accidental liquid ingress.

In order to achieve accurate measurement of the average room temperature, it is recommended to place the sensor away from strong air currents. Place the temperature sensor with the defrosting terminal between the fins of the evaporator in the coldest place where the largest amount of ice is formed, away from the heater or the warmest place during defrosting to prevent premature termination of defrosting.

## USING THE HOT KEY PROGRAMME KEY

How to programme a hot key from a device (read)

1. Programme the button device.
2. When the machine is switched on, insert the "Hot key" programming key and press the button. The message "uPL" will appear and "End" will flash.
3. Press the "SET" button and the "End" indicator will stop flashing.
4. Switch off the appliance, remove the "Hot Key" programming key and switch the appliance back on.

Note: If programming and data transfer are incorrect, the message "Err" will be displayed. In this case, press the "▲" button again if you want to restart reading, or remove the "Hot key" key and repeat the operation.

How to programme the machine using a hot key (recording)

1. Switch off the machine.
2. Insert the programmed "Hot Key" into the 5-pin connector and switch on the device.
3. The parameters from "Hot Key" are automatically entered into the device's memory; the message "doL" is displayed and "End" flashes.
4. After 10 seconds, the device will restart and begin operating with the new parameters.
5. Remove the "Hot Key" programming key.

Note: If programming and data transfer are incorrect, the message "Err" will be displayed. In this case, switch the device off and on again if you want to restart the recording, or remove the "Hot key" key and repeat the operation.

## ALARM SIGNALLING

Note	Reason	Outputs
<b>P1</b>	Thermostat sensor malfunction	According to the set parameters Con and COF
<b>HA</b>	High temperature alarm	Output unchanged
<b>LA</b>	Low temperature alarm	Output unchanged
<b>dA</b>	Doors open	The compressor and fan restart.
<b>"EA"</b>	External alarm	Output unchanged
<b>"CA"</b>	Serious external alarm (i1F=bAL)	All outputs switched off
<b>"CA"</b>	Serious external alarm (i1F=PAL)	All outputs switched off

## ALARM STATUS CORRECTION

The alarm for sensor "P1" is activated a few seconds after occurrence. Deactivation occurs after a short time when normal sensor operation is restored. Before replacing the sensor, first check the wiring. The "HA" and "LA" temperature alarms are automatically deactivated as soon as the temperatures return to

normal or defrosting starts.

The "EA" and "CA" alarms (i1F=bAL) are triggered immediately after the digital input is deactivated, and the "CA" alarm (i1F=PAL) is triggered after the device is switched off and on again.

## Cleaning and maintenance

Keep the device clean. Before cleaning, unplug the appliance from the mains (do not use a strong jet of water or try to remove frost from the shelves using various tools). Use a cloth dipped in a solution of warm water and detergent. Wipe dry.

If you store unpackaged food in the appliance, we recommend cleaning and defrosting it thoroughly every week to prevent the spread of bacteria..

When storing packaged food, complete cleaning and defrosting must be carried out at least once a month. We recommend cleaning the exterior and interior door seals daily.

### Condenser cleaning

Clean the condenser monthly using a vacuum cleaner or brush. Always perform cleaning with the device switched off. Wear gloves when cleaning to prevent injury.

#### Please note:

A dirty condenser negatively affects the function of the device (reduces its performance and increases energy losses).

### Maintenance of the cooling chamber

Have the cooling table checked by qualified personnel once a year. All repairs or replacements of parts must be carried out by a qualified person.

Do not set temperatures lower than those specified by the manufacturer, as this could damage the boiler! Before you start filling the appliance, make sure that it has reached operating temperature!

ADJUST THE CONTROL ELEMENTS WHEN THE DEVICE IS DISCONNECTED FROM THE MAINS. IF THIS CONDITION CANNOT BE MET, WORK WITH MAXIMUM CAUTION.

## 8. CLEANING AND MAINTENANCE

It is recommended to have the device checked with a specialist service at least once a year. All the interventions in the device can only be carried out by a qualified person who has the authorization to do so.

**CAUTION!** The device must not be cleaned with direct or pressure water. Clean the equipment daily. Daily maintenance extends the life and efficiency of the equipment. Always turn off the main inlet to the device. Wash the stainless steel parts with a damp cloth with a detergent without coarse particles and wipe dry. Do not use abrasive or corrosive cleaning agents. Attention! Before using the device, it is necessary to remove the protective foil from the entire surface, and then wash it well with water with detergent, and then wipe it with a damp cloth. **ALERT!** The warranty does not apply to all consumables subject to normal wear (rubber seals, bulbs, glass and plastic parts, etc.). The warranty also does not apply to the device if the installation is not carried out in accordance with the instructions - an authorized worker according to the corresponding standards and if the equipment was unprofessionally manipulated (interventions in the internal equipment, etc.) or were operated by unhappy staff and contrary to the instructions for use, further The

warranty does not apply to damage by natural effects or other external intervention. **Required service organization 2 times a year. After the lifetime, the shipping packaging and equipment are submitted to the collection, according to the regulations on waste management and hazardous waste.**