Bloom
an OPREMA company

EN *USER MANUAL*

HIPPOCRATES COOLING CABINETS

Code 399004

Original instructions v3 (07/2024)

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Symbols Used in These Instructions for Use

Danger	**This symbol indicates the existence of either imminent danger to life on or around the device, or the possibility of serious danger to the user or any other person nearby; extreme caution and careful further operation are required.**
Warning	**This symbol indicates the existence of potential risk of serious injury during the use of the device or around it to the operator or any person near the device; extreme caution and careful further operation are required.**
Danger	**This symbol indicates that the device is live. Prior to working with the device, switch off the electricity in order to prevent any damage or threat to health.**
Danger	**This symbol indicates that the device is filled with flammable refrigerant R290 of high level of ecological compatibility.**
Notes	**Contains information which helps ensure accurate operation of the device.**

Instructions for Use

These Instructions contain instructions for installation, use and device operation. These Instructions constitute an inseparable part of the device and should be kept alongside the device so that they may be used by technical staff during any removal or device installation. Prior to the installation and use of the device, please read the instructions carefully as they contain important information, so that each procedure can be performed correctly and safely.

Notes

These Instructions refer to standard device versions. Non-standard devices may contain minor differences which are not described in these Instructions. These Instructions can also be found on our web page (www.bloom.eu)

This device is intended for professional use only and is not meant for households.

Cleaning and user maintenance shall not be performed by children.

If the supply cord is damaged, it must be replaced with a special cord or assembly available from the manufacturer or their service agent.

Do not store explosive substances such as aerosol cans with a flammable propellant in this device.

WARNING: Do not obstruct any ventilation openings in the device enclosure or in the structure where the device will be installed.

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

WARNING: Do not damage the refrigerating circuit.

WARNING: Do not use electrical appliances inside the storage compartments unless they are of the type recommended by the manufacturer.

During installation of the device the electricity needs to be switched off, until the end of installation and start of trial operation. Following installation, the device must remain switched off for two hours; do not switch on the device during this time.

Only trained staff can carry out servicing and maintenance jobs. All electrical and water installation parts have to correspond to national and local legal requirements (when replacing parts, please use original parts only). Never use a damaged device!

If the electrical cable is damaged, it needs to be replaced by the producer, their servicing electrician or another professional, in order to avoid danger.

Do not use open flames or other potential sources of sparks when the device using refrigerant R290 is in operation in the vicinity!

You must not damage the cooling circuit!

Do not place explosive aerosol containers (sprays, tubes) around the device.

Warning Do not use a water jet for washing the device.

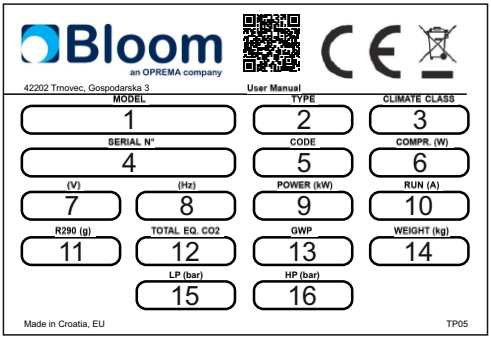
Danger Switch off the electricity at the time of cleaning the device.

Danger Devices which contain the symbol 

are filled with refrigerant R290 (propane). Since the device contains flammable refrigerant, please make sure that you dispose of the expired device according to legal requirements. Contact the dealer or your local responsible services when you intend to dispose of the old device.

Cooling Unit Marks and Characteristics

Every cooling unit has its own identification number/code. This number is on the plate/label “Technical Data”. The plate/label with technical data is the only way to identify the cooling unit; it contains all necessary data about the unit which is relevant to the user/service personnel for quick and simple identification.



1. Model: Model of device
2. Type: Name of the cooling unit
3. Climate class: Climate class
4. Serial number: Serial number of the cooling unit
5. Code: Unit identification code
6. Compressor power (W): Power of compressor unit
7. (V): Voltage in volts
8. (Hz): Frequency in hertz
9. Power: Power in kW during normal operation
10. Run: Current in Ampers during normal operation
11. Type and quantity of refrigerant in the system in grams
12. Total EQ. CO2: Total carbon footprint
13. GWP: Global Warming Potential
14. Weight: Weight of unpacked unit in kg
15. LP: Maximum pressure on low pressure side
16. HP: Maximum pressure on high pressure side
17. Quality control: Unit has been tested for secure usage
18. Bloom Technologies logo: Manufactured by Bloom Technologies d.o.o.

This manual is valid for following cooling units:

HIPPOCRATES 100, HIPPOCRATES 250, HIPPOCRATES 400, HIPPOCRATES 100

Hippocrates is a professional pharmaceutical refrigerator. Products which can be stored include medications and vaccines. All can be stored at temperatures between 0°C and 15°C. Units are equipped with sophisticated performance and control software system with temperature limit adjustment, historical data storage and alarms.

Dimensions (WxDxH)
HIPPOCRATES 100 : 621mm x 685mm x 1095mm
HIPPOCRATES 250 : 621mm x 685mm x 1576mm
HIPPOCRATES 400 : 621mm x 685mm x 2050mm
HIPPOCRATES 100 G : 621mm x 685mm x 1095mm
HIPPOCRATES 250 G : 621mm x 685mm x 1576mm
HIPPOCRATES 400 G : 621mm x 685mm x 2050mm

Serial Number Format:
YYWWDDNNNN
YY-Year of production
WW-Week of production
DD-Day of production
NNNN-Number of device manufactured on specific date

Warranty
The warranty on the cooling unit is valid for 24 months from the date of production, unless otherwise agreed by contract. We recommend saving the original packing box and materials, as well as the invoice, for at least the duration of the warranty period.

Compliance with Regulations

The company Bloom Technologies d.o.o. is a manufacturer of cooling cabinets for professional use. The policies of quality management and environmental management are the foundation of Bloom Technologies d.o.o.'s business.

Device compliance

Emission classification according to EN 61326-1: Class B

Intended immunity environment according to EN 61326-1: Industrial.

Transport and Storage

To avoid damage to the cooling unit, it is important to handle it with care during loading and unloading.

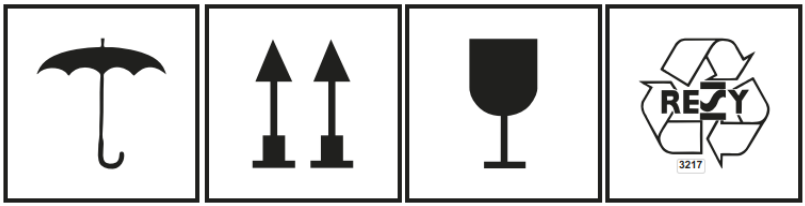
A crane can be used for unit movement only if the unit is on a pallet.

- DO NOT turn around the unit

- DO NOT shake the unit or complete package

The unit has to be stored in an adjusted and clean space, at a temperature between 0-40°C. Do not store coolers on top of one another, and take care to set them in a vertical position as indicated on the packaging.

After relocation, cooler needs to rest for 24h to let oil return to compressor.



Packing Postponement

When the cooling unit is unpacked, it is necessary to check whether it is in proper condition (visually undamaged). In case of any doubt as to damage to the cooling unit within the packaging, do not install and use the unit. During packing postponement we ask you to respect local legislation regarding packing postponement. Do not incinerate package parts or throw them into the environment. The packaging of this cooling unit can be recycled in total. Keep packing material away from children.

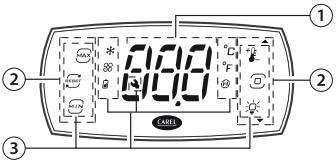
E**nvironmental Conditions for Installation**

The cooling unit has to be installed in a place where it is protected from rain and spraying water, with ambient temperature in range of 10°C to 30°C; in case these terms are not met, the warranty is void and malfunctions in performance are possible. Maxiumum operating altitude for all devices is 2000m.

Procedures in Case of Malfunction

Most technical issues can be easily solved using simple procedures. For this purpose we ask you to read the instructions carefully before informing service personnel or the manufacturer. In case you cannot solve the problem by using the instructions from this manual, please contact the seller from which the unit was bought. Keep units in good condition and do not allow any modifications, except if they are approved by the manufacturer.

The Electronic Regulator Interface



1-Display
2-Icons/Backlit buttons
3-Icons

APPLICA
Local and remote technical app for **Service**

CONTROLLA
Local and remote new interaction app for **End users**

CAREL APPs
App Store
Google play

Note: Instructions for application can be found in Appendix 2 of this document

Icon	Description	On	Flashing
	Set point / Up arrow	Increase value Scroll through menu Access Setooint	/
	Program	Enter menu Save parameter value Enter programming mode (Hold) Return to previous level (Hold)	/
	Light / Down arrow	Decrease value Scroll menu Turn on/off light	/
MIN	Min temperature	Min temp recorded	/
MAX	Max temperature	Max temp recorded	/

Icon	Description	On	Flashing
	Reset min/max temperature	Reset min/max temperature recorded	/
	Compressor	Active	Waiting
	Battery status	In charge	To be replaced
	High temperature	Active high temperature alarm	/
	°C	Unit of measure - °C	/
	°F	Unit of measure - °F	/
	Service/Maintenance	Active alarms	/

Installation

In accordance to current law regulations, installation and release of cooler in function, this needs to be done by specialized and trained technical staff.

Cooling unit can be installed only indoor. It needs to be in the space where room temperature does not over cross borders of climate class which can decrease cooling efficiency.

The cooling unit needs to be properly set on a surface:

The max. incline allowed is 2 degrees. For installation of the cooler with air cooling it is necessary to ensure enough free space for the cooler (0.4m in front of the air entrance/exit). The cooler needs to be set on a straight surface with enough fresh air, away from heat sources. Free air circulation around the cooler needs to be ensured.

The measured value of the sound level should be below 70dB!

Please ensure enough air circulation for the fan!

Each cooler produced with refrigerant R290 in the amount of 120g (please see Technical Data) needs to be installed in an environment with a minimum volume of 15m3 (max allowed is 8g/m3). Coolers cannot be installed in environments used as halls or emergency exits.

Coolers from Group 3 (the cooling system contains less than 150g) can be installed anywhere without extra precautions.

Service and maintenance of cooler can be carried out only by qualified staff. All parts of the electrical and water installations need to be in accordance with national and local legislation. Always use only original parts for spare parts. Do not use a defective cooler.

For all coolers, it is necessary to ensure that they are not in direct proximity to heat sources. The ambient temperature at which the cooler is installed is very important for its cooling capacity. The general rule is that with an increase in the ambient temperature, the cooling capacity is lower and consumption of electricity is increased. The coolers are produced with a single phase cable 3 x 1,5mm² , so a grounded 230V and 50Hz jack must be nearby. Appropriate fuse must be installed in electrical instalation. Voltage deviations should not be more than 10% of its nominal value because this can cause damage to the electrical components. When installing device, it is important to assure that mains plug is reachable.

Markings on terminals inside electrical box:

L - Line
N - Neutral
⏚ - Protective earth (PE)
CMP - Compressor
DEF - Defrost valve

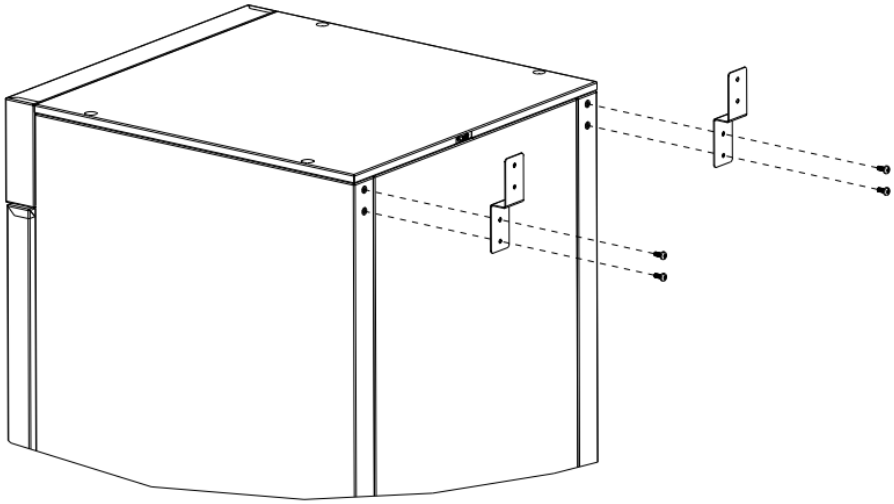
During installation, the cooler needs to be unplugged from the electricity until installation and a probation test is carried out. The cooler should not be turned on until 2 hours after installation.

Anti tilt bracket

Warning

Cabinets must be secured to a stable vertical surface to ensure cabinet cannot tip over when the drawers are drawn to the outermost position, or door is open. Brackets for securing cabinet are included.

lAnti tilt bracket installation instructions:



NOTE: Safety of any system incorporating the equipment is the responsibility of the assembler of the system.

Warning

In case device is not installed and used accodring to instructions, equipment protection may be impaired.

Cleaning and Maintenance of the System

During cleaning, disconnect the cooler from the power supply. Device must be checked throughly before it is put back into operation.

Cleaning and maintenance of the system is divided into:

1. Daily assignment
2. Monthly assignments
3. System sanitation

If cooler is defective due to a mistake in maintenance or some other reason, we suggest placing a notification on the cooler.

Daily Assignment:

It is necessary to keep the cooler clean, as well as the space around the cooler and the dispensing tower, including the tap and drip tray.

Monthly Assignments:

Clean any dirt and dust from the device. Pay particular attention to the condenser in units with air cooling, because if too much dust builds up, this directly decreases the refrigeration capacity of the device. Do not use high pressure because it can damage the condenser. Use a vacuum cleaner or brush to clean the blades.

Service and Repairs

In order to ensure your safety and abide by current legislation, all repairs must be carried out by authorized personnel.

For service and repair on coolers with R290, service staff should be specially trained and qualified for handling flammable substances. This includes knowledge about tools, work with the compressor and cooling unit, basic legislations and precautions regarding service and repair.

Do not use open flames or potential sources of sparks in the proximity of a cooler with R290 in use.

Instructions for Device Disassembly

Warning **The cooler disposal procedure must be carried out in compliance with legislation.**

Steel, plastic and other materials must be disposed of by an authorized person.

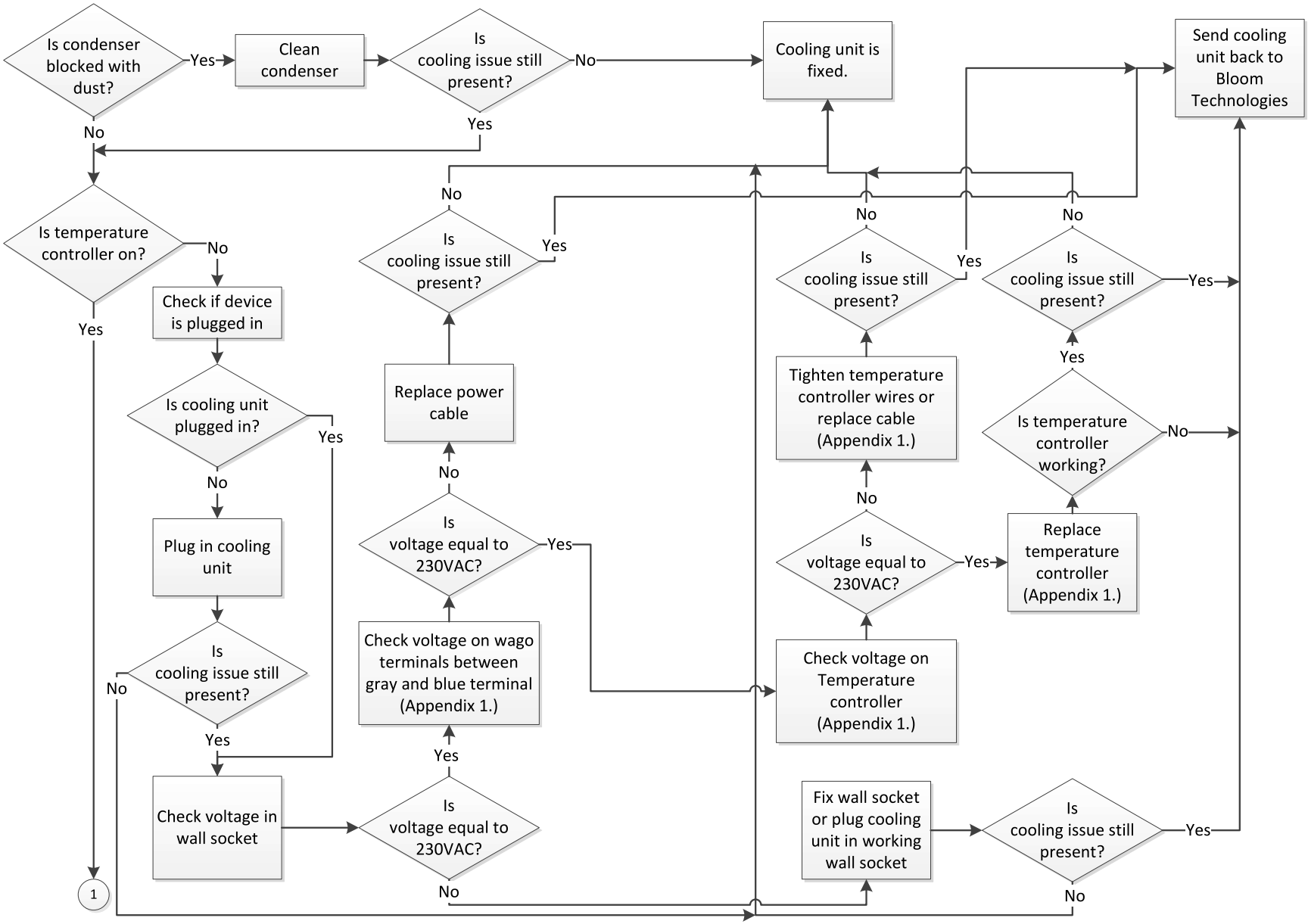
Isolation material must be disposed of by an authorized company and person.

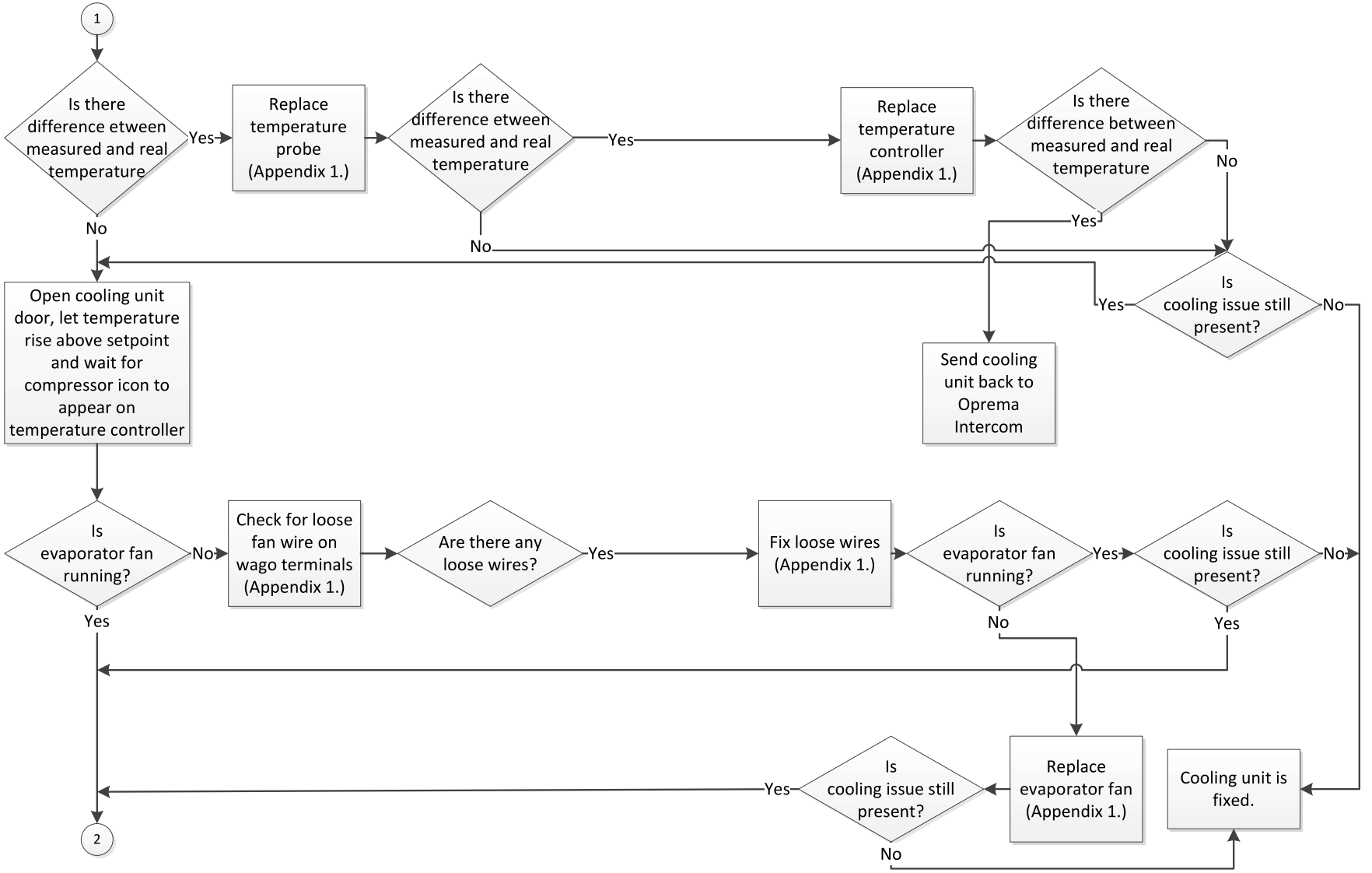
Each refrigerant (check the label) must be removed with special equipment by an authorized person and company.

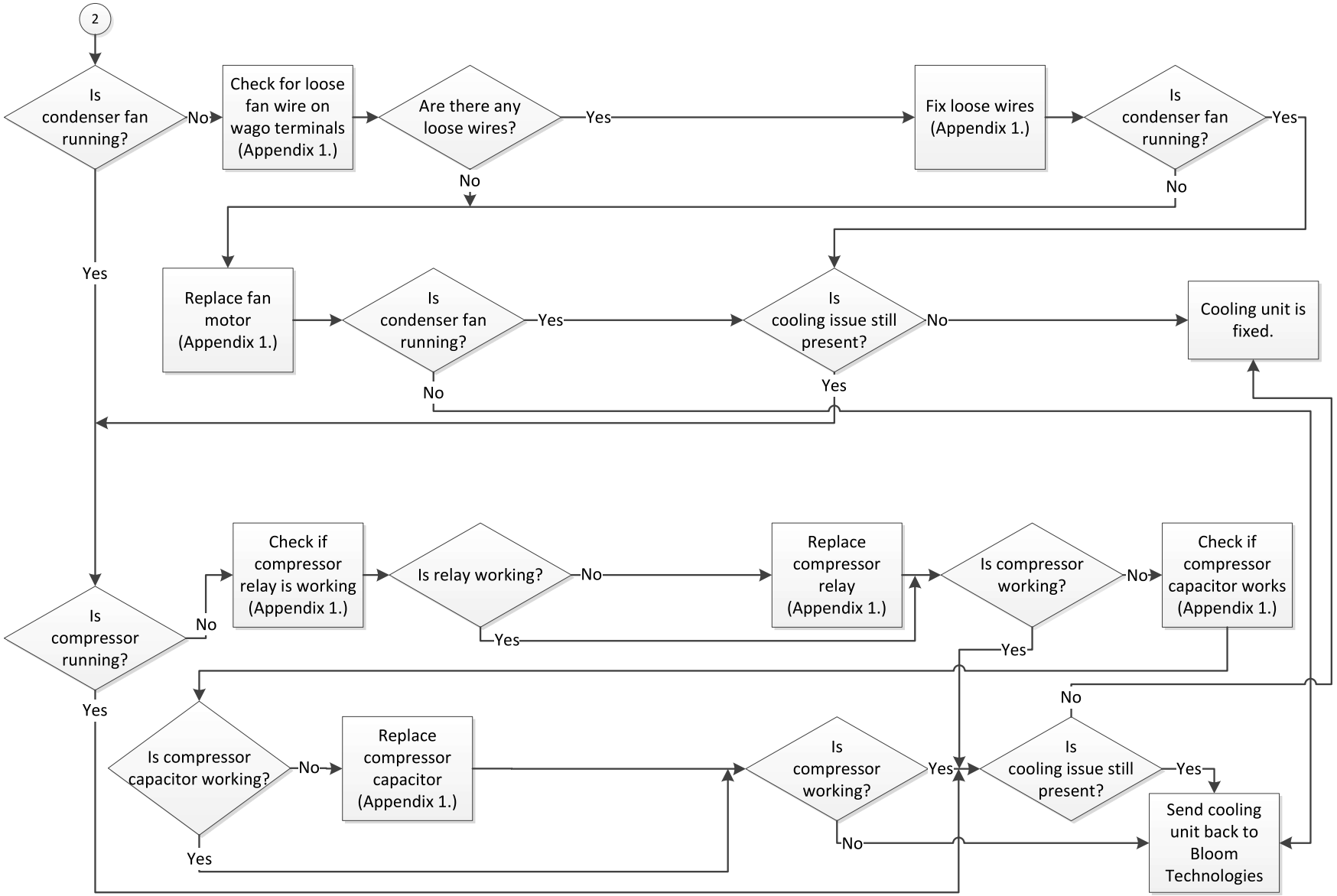
Refrigerants should not be spread in working area.

Coolers with the mark R290 **contain the refrigerant R290 (propane). Given that the refrigerant contained in these coolers is flammable, please dispose of any coolers that are out of operation according to legislation. Contact your seller or local authorized company for disposal of the cooler.**

According to legislation regarding the management of waste electrical and electronic devices, and according to EU Directive 2002/96/EC, the symbol with a crossed out trash can on equipment or packaging means that a product should be disposed of separately from other waste after use, connected to decreased use of dangerous substances in electronic and electrical equipment and adequate waste disposal. Separate collection and recycling of this equipment decreases possible negative effects on the environment and health, and ensures that some of the materials are being reused. Unauthorized disposal of this product by the user could lead to legal sanctions in accordance with current legislation.


Is condenser blocked with dust?
Yes
Clean condenser
Is cooling issue still present?
No
Cooling unit is fixed.
Send cooling unit back to Bloom Technologies
Yes
No
Is temperature controller on?
No
Yes
Check if device is plugged in
Is cooling unit plugged in?
Yes
No
Plug in cooling unit
Is cooling issue still present?
No
Yes
Check voltage in wall socket
Is voltage equal to 230VAC?
No
Yes
Check voltage on wago terminals between gray and blue terminal (Appendix 1.)
Is voltage equal to 230VAC?
Yes
No
Replace power cable
Is cooling issue still present?
Yes
No
Check voltage on Temperature controller (Appendix 1.)
Is voltage equal to 230VAC?
Yes
No
Replace temperature controller (Appendix 1.)
Is temperature controller working?
No
Yes
Tighten temperature controller wires or replace cable (Appendix 1.)
Is cooling issue still present?
Yes
No
Fix wall socket or plug cooling unit in working wall socket
Is cooling issue still present?
Yes
No
Is cooling issue still present?
Yes
No
1


1
Is there difference etween measured and real temperature
Yes
No
Replace temperature probe (Appendix 1.)
Is there difference etween measured and real temperature
Yes
No
Replace temperature controller (Appendix 1.)
Is there difference between measured and real temperature
Yes
No
Open cooling unit door, let temperature rise above setpoint and wait for compressor icon to appear on temperature controller
Send cooling unit back to Oprema Intercom
Is cooling issue still present?
Yes
No
Is evaporator fan running?
No
Yes
Check for loose fan wire on wago terminals (Appendix 1.)
Are there any loose wires?
Yes
Fix loose wires (Appendix 1.)
Is evaporator fan running?
Yes
No
Is cooling issue still present?
No
Yes
Is cooling issue still present?
Yes
No
Replace evaporator fan (Appendix 1.)
Cooling unit is fixed.
2


2
Is condenser fan running?
No
Check for loose fan wire on wago terminals (Appendix 1.)
Are there any loose wires?
Yes
Fix loose wires (Appendix 1.)
Is condenser fan running?
Yes
No
No
Yes
Replace fan motor (Appendix 1.)
Is condenser fan running?
Yes
Is cooling issue still present?
No
Cooling unit is fixed.
No
Yes
Is compressor running?
No
Check if compressor relay is working (Appendix 1.)
Is relay working?
No
Replace compressor relay (Appendix 1.)
Is compressor working?
No
Check if compressor capacitor works (Appendix 1.)
Yes
Yes
Yes
Is compressor capacitor working?
No
Replace compressor capacitor (Appendix 1.)
Is compressor working?
Yes
No
Is cooling issue still present?
Yes
Send cooling unit back to Bloom Technologies
Yes
No

Check voltage between gray and blue Wago terminals (plug in cooling unit)

Using a multimeter, check voltage on Wago terminals between gray and blue terminals. Voltage should be 230V AC.

Check voltage on temperature controller (plug in cooling unit)

Using multimeter, check voltage between temperature controller terminals 6 and 7. Voltage should be 230V AC.

Tighten temperature controller wires or replace cable

Check all temperature controller terminal wires and if there are any loose wires, tighten them.

Replace temperature controller

Remove all terminals from temperature controller.
Remove temperature controller by pressing clips on controller.
Install new temperature controller and plug in terminals.

Replace temperature probe

Unscrew temperature probe from terminals.
Remove temperature probe and replace it with a new one.
Tighten temperature probe wires and plug in terminal.

Check for loose wires on Wago terminals

Check if there are any loose wires on Wago terminals and if there loose wires, replug them into Wago terminals.
Secure wires with zip ties.

Replace evaporator fan

Remove evaporator cover.
Unplug evaporator fan wires from Wago terminals.
Replace evaporator fan.
Plug new evaporator fan wires into Wago terminals.
Install evaporator cover.

Replace condenser fan motor

Remove condenser fan motor wires from Wago terminals.
Remove condenser fan assembly from condenser.
Remove condenser fan blade and motor from motor holder.
Mount new motor on motor holder and mount fan blade on motor.
Remount condenser fan assembly on condenser.
Replug wires into Wago terminals.

Check and replace compressor relay

Unplug cooling unit from wall and plug it back in.
Wait for 2 minutes. After 2 minutes you should hear a click from the compressor relay.
If you can't hear a click, replace compressor relay by removing all wires from relay and pulling relay away from compressor housing.
Mount new relay on compressor and replug all wires in the same manner as before.

Check and replace compressor capacitor

Unplug capacitor from compressor.
Using multimeter check capacity of capacitor.
If capacity isn't the same as declared on capacitor, replace capacitor.

Controlla Application

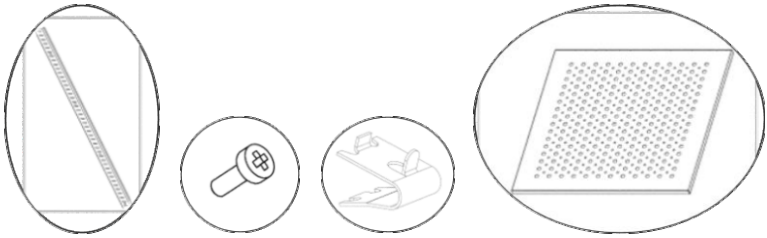
Controla application is intended for monitoring and control of cooling unit. You can control setpoint and lighting as well as monitor temperature, alarm and event history.
To change setpoint click on following icon and enter new setpoint value.

Other functions:

Icon	Function
	Turns light on/off.
	Displays last appearance and duration of HIGH/LOW Alarm.
	Displays details about live alarms and alarm history.
	Displays graph of temperature logs. You can also view time of MIN/MAX temperature resets, alarm logs and blackout logs.
	Sync temperature controller time with your smartphone time.
RESET	Reset MIN/MAX temperature.

Set components

No.	Name
1	Inox rack
2	Screw M4 x 12 A2
3	Inox holder
4	Inox shelf



1 2 3 4

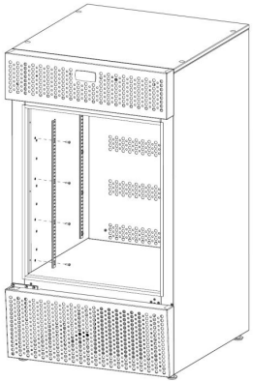


Figure 1. Mounting of inox rack

Step 1.

Unpack set from boxes. Take out inox rack and screw M4 x 12.
Screw it to the inside of the cabinet. (Figure 1.)

HIPPOCRATES 100 - Inox rack; 535 mm

HIPPOCRATES 250 - Inox rack; 1000 mm

HIPPOCRATES 400 - Inox rack; 1500 mm

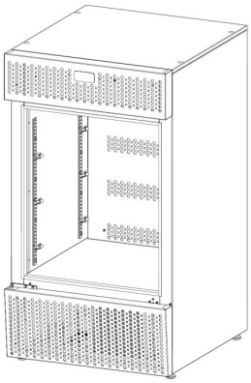


Figure 2. Mounting of inox holders

Step 2.

Mount inox holders on inox rack. Use 4 holders per shelf.

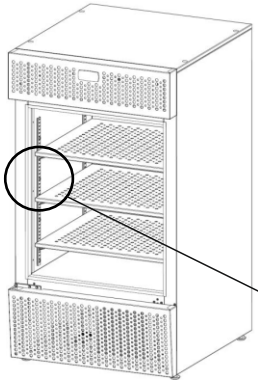
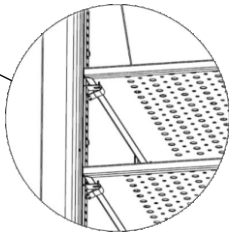


Figure 2. Shelf

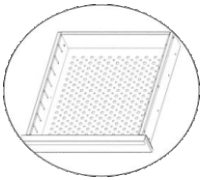
Step 3.

Place shelf on top of the inox holders.



Set components

No.	Name	Quantity
1	Inox drawer	1
2	Screw M4 x 10 A2	8
3	Slide bracket (left/right)	2
4	Slide set (left/right)	2
5	Screw M4 x 10 A2	14
6	Drawer organizer set	1



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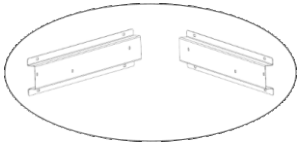

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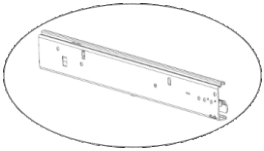

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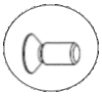

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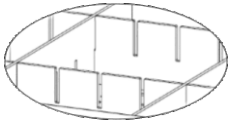

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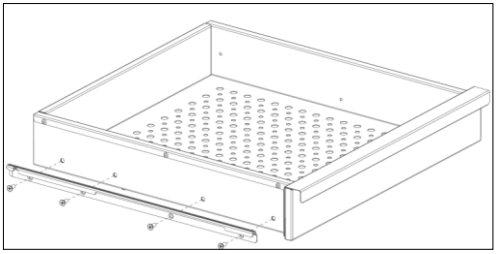


Figure 1. Mounting of drawer profile

Step 1.

Unpack set from boxes. Take out inox drawer, slide sets and number 5 screw M4 x 10 A2. Mount drawer profile on the sides of the drawer.

IMPORTANT: Slide set contains mirrored left and right slide!

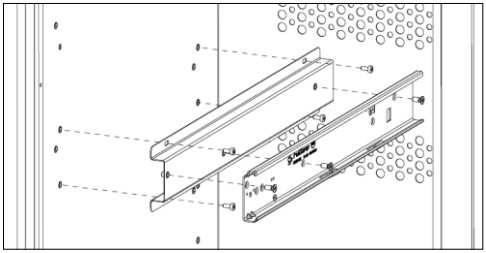


Figure 2. Mounting of side bracket

Step 2.

Mount slide brackets to the other side of the cabinet. Use number 2 screw M4 x 10 A2 to tighten bracket to the side. Use number 5 screw M4 x 10 A2 to mount slide profile onto brackets.

IMPORTANT: Slide set contains mirrored left and right slide!

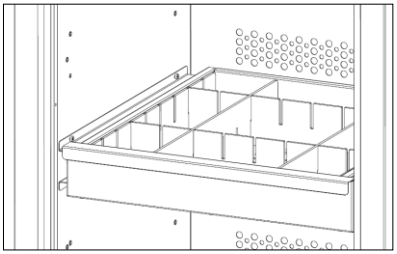
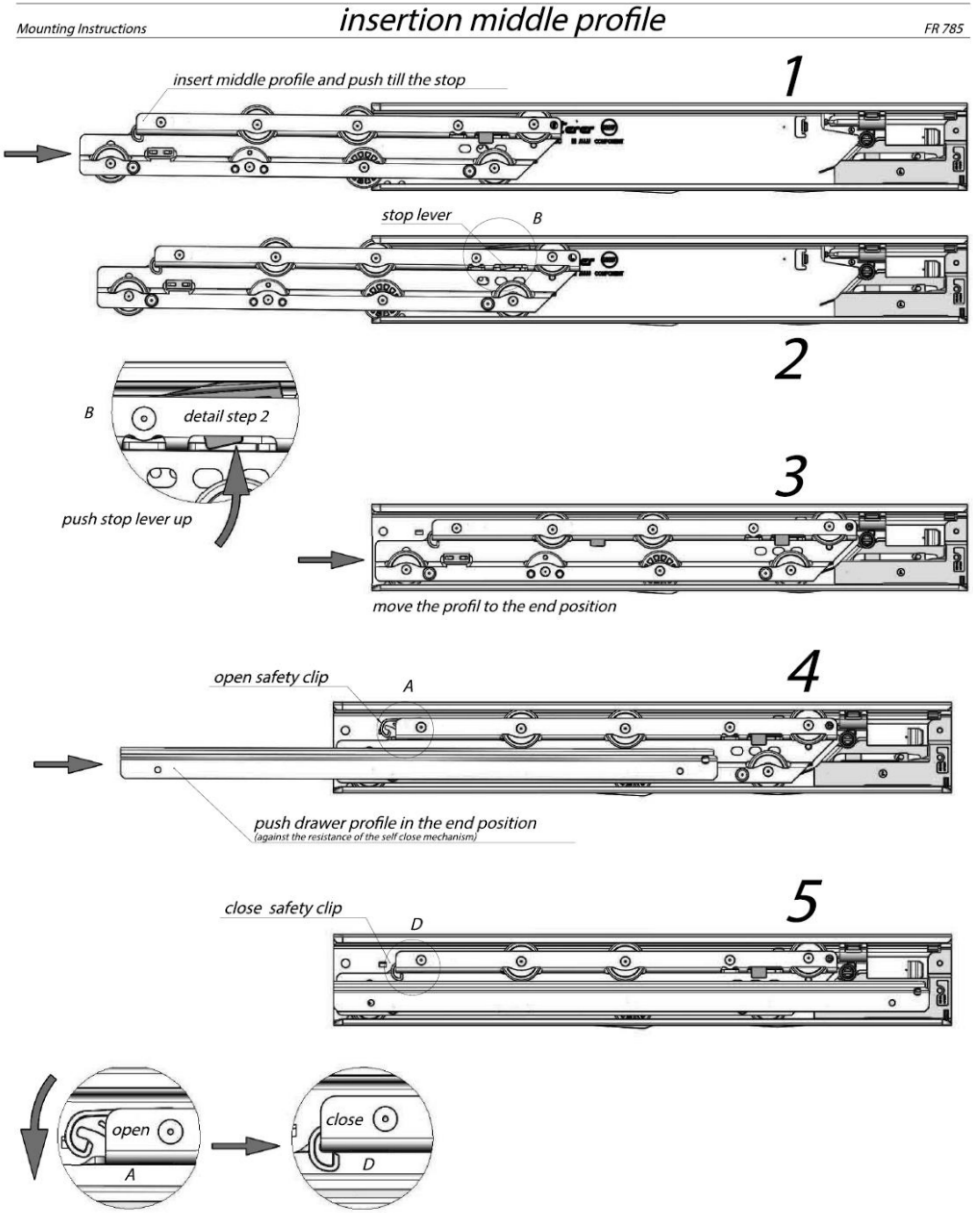


Figure 3. Drawer

Step 3.

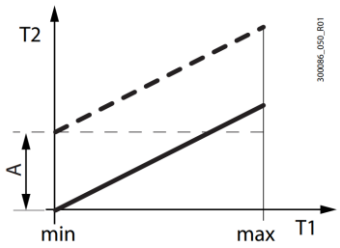
Insert middle profile and push it till the stop [slide insertion instructions on next page]. Mount drawer set to the slides. Use drawer organizer set to organize drawer to up to 9 smaller compartments.

IMPORTANT: Slide set contains mirrored left and right slide!


Mounting Instructions
insertion middle profile
FR 785
insert middle profile and push till the stop
1
stop lever
B
2
B
detail step 2
push stop lever up
3
move the profil to the end position
open safety clip
A
4
push drawer profile in the end position
(against the resistance of the self close mechanism)
close safety clip
D
5
open
A
close
D

	Hippocrates 100	Hippocrates 250	Hippocrates 400
Voltage [V]	230	230	230
Current [A]	2,2	2,2	2,2
Frequency [Hz]	50	50	50
Indoor use	Yes	Yes	Yes
Outdoor use	No	No	No
Maximum ambient temperature [°C]	30	30	30
Maximum ambient humidity [%]	70% (non condensing)	70% (non condensing)	70% (non condensing)
Overvoltage category	II	II	II
Pollution degree	PD2	Pd2	Pd2
IP rating	IPX0	IPX0	IPX0
Maximum operation altitude [m]	2000	2000	2000

Calibration parameter change



T1	Temperature read by probe
T2	Calibrated temperature
A	Calibration offset
min, max	Field of measurement

Connect to temperature controller with Applica app for iOS or Android. Use service user (default password 20).
Open menu by clicking on button on top left of the screen and select Parameter list.
Measure temperature with calibrated instrument next to cooler temperature probe.
Search for parameter "/cA" and add temperature probe offset to this variable. (A = T2 - T1)