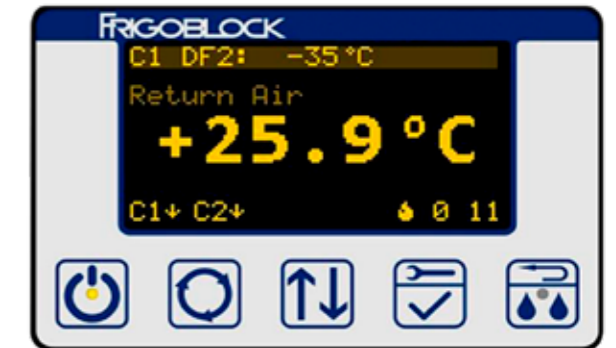


## Universal Remote Control Unit FRIGOBLOCK Refrigeration Units

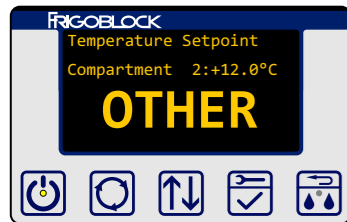


## Driver Guide to Simple Operation

The "OTHER" temperature setting supports a customized setting in the range from -35 °C to +20 °C. This function can be used if none of the setpoint temperatures serves your purpose.

For changing the „OTHER“ setpoint temperature, press the button.

Press to set a lower temperature; press to set a higher temperature. The changed temperature is displayed in the highlighted part of the display.



Confirm your setting with the button.

As a final step, press to confirm the setpoint temperature displayed and then press to exit the menu.

### Switching on the refrigeration device

Switch on the refrigeration device by pressing the button; the LED display ON gives constant light.

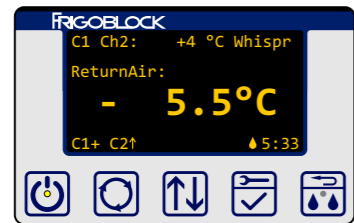
### Switching on the compartments

Depending on the type of refrigeration device and the number of compartments in the body,

the different compartments can be switched on and off. Select the required compartment by a brief press of the button. Then switch the compartment on or off by pressing and holding the button.

The status display shows the switching state. Gives constant light = compartment is switched on, Inverted color = compartment is switched off or .

The following operating states of the compartments are displayed provided the refrigeration device remains on. The current temperature in the compartment is shown in the display.



Refrigeration mode  
The arrow down icon in the display shows that refrigeration mode is active.



Heating mode

The arrow Up icon in the display shows that heating mode is active.

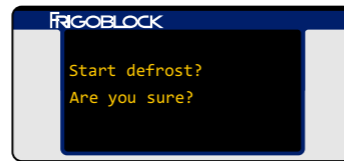


Temperature attained

The horizontal arrow sign in the display shows that the required temperature has been attained. (the fan keeps running).

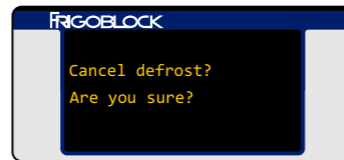


If defrosting is required, confirm the prompt "Start defrosting? Are you sure?" by pressing the button.



The views described under Defrosting mode will be displayed at the universal remote control unit.

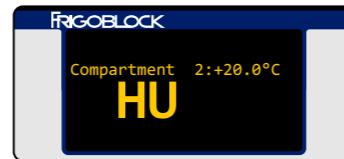
The defrosting can be interrupted by pressing the button in defrosting mode again. Confirm the prompt "Interrupt defrosting? Are you sure?" by pressing the button.



The defrosting mode will be interrupted.

### Heating mode

Heat the empty superstructure once a week. If the evaporators are heavily iced up, the defrosting mode should be utilised before heating starts; see "Defrosting mode". For heating, operate all compartments in "heating" mode at least for one hour. Proceed with selecting the AHZ = heating setpoint temperature for each compartment as described at "presetting temperatures".



Then set the required setpoint temperature for each compartment again.

### Changing the speed

When an inverter filter is used, the refrigeration output can be adapted to the unit. Press the button several times until the required refrigeration output in the display gives constant light. This sets the speed

- slow
- normal
- high

### Fast (Boost) / slow (Whisper) run

Change speed setting  
For reducing noise emission Inverter driven FRIGOBLOCK refrigeration devices (FKI or driven via Inverter filter) at three different speed levels. Select the required speed by pressing the button repeatedly. The speed level set last is adopted and effective.



The selected speed is shown in the upper right corner in the display.

### Faults

Refrigeration device in alternator mode without function:

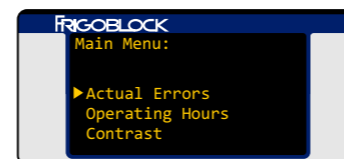
- Inspect fuses F1 + F2 and F31, F32, F33 resp.. Place: Truck fuse panel.

Refrigeration device completely switches off independently.  
Set the mains-0-alternator switch to "0", Pull the mains plug, Open the mains-0-alternator control box and switch on the motor protection switch in the mains-0-alternator control box.

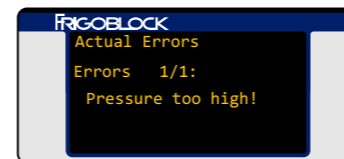
motor overload protection switch



When a fault is detected, exclamation marks are shown in the display. Details about the fault can be displayed when the menu is opened.  
To open the menu, press and hold the button.



Select the item „Actual Errors“ and press the button to confirm.



### General points

1. For smooth operation of the FRIGOBLOCK refrigeration device and maintaining the refrigeration output as well as for saving energy, clean the condenser at intervals of four weeks; the refrigeration device must be switched off for that activity. The cleaner should contain a corrosion inhibitor, be insensitive to metallic materials and not exceed a temperature of 60°C. Ensure that the jet of cleaning fluid is not too sharp and that it hits the condenser vertically so that fins are not bent or damaged.
2. **DO NOT** clean plug connections and control boxes with high pressure liquid.
3. The maintenance intervals are prescribed in the service log. The work items and repairs listed there must only be performed by FRIGOBLOCK service partners.
4. Extended downtime of the refrigeration device causes faster aging of the seals in the refrigeration system. To prevent early aging, run the refrigeration device in „refrigeration“ mode at least once every month for a short while.
5. If the refrigeration device is operated in a closed room, the ambient temperature of the room must not be higher than the usual outdoor air temperatures.
6. Any unauthorized change or modification to the technical equipment is forbidden.
7. **DO NOT** exceed the ratings on the nameplate of the refrigeration device.
8. Not all controls described in this manual may actually be available on your unit because the operation sequences are automated.
9. Technical modifications are reserved by FRIGOBLOCK GmbH.

### Safety

1. Before opening a control box or starting work at the refrigeration device, set the mains-0-alternator switch to position "0" and pull the mains plug. Secure against unauthorized starting.
2. **Caution!** When opening doors or flaps of the refrigeration device or removing a cover remember there is hazard from rotating parts, electrical voltage, heat and cold.
3. Switch off the refrigeration device before you enter the refrigerated box.

IMPORTANT!: For all other safety recommendations, please check the User Manual.

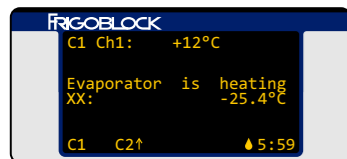
### Caution:

- Operate plug connectors only when the refrigeration device is switched off
  - Close socket outlets when they are not used
  - Pull the mains plug before driving off
- Constantly monitor the temperatures in the body.  
Observe more information and maintenance instructions in the operation manual.

## Defrosting mode

When a compartment is in defrosting mode, the LED lights to indicate that mode.

The display of the compartment in defrosting mode shows the present temperature of the evaporator pack. Defrosting ends at the temperature of +12 °C.



If a compartment other than defrosting compartment is selected, the icon in the display indicates the defrosting mode of a compartment.



Following the end of defrosting the evaporator is a short standstill during which the compartment is switched off.

### Defrosting

Defrost the refrigeration device regularly, several times a day when on tour. Required time: approx. 20 min. During that time, neither the refrigeration device nor the truck engine (in alternator mode) should be stopped. The defrosting mode can also start automatically.

When automatic defrosting mode is enabled, the time remaining to the next defrosting cycle is displayed in the hours / minutes time format.

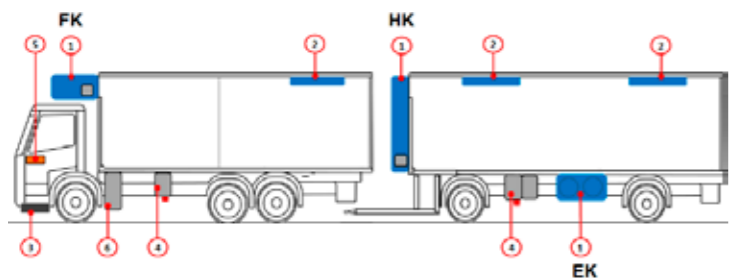


In addition, defrosting can also be started manually by pressing the defrost button at the remote control unit.

# OPERATING INSTRUCTIONS

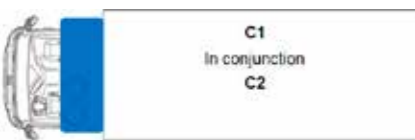
## At a glance

### Positions of the main components

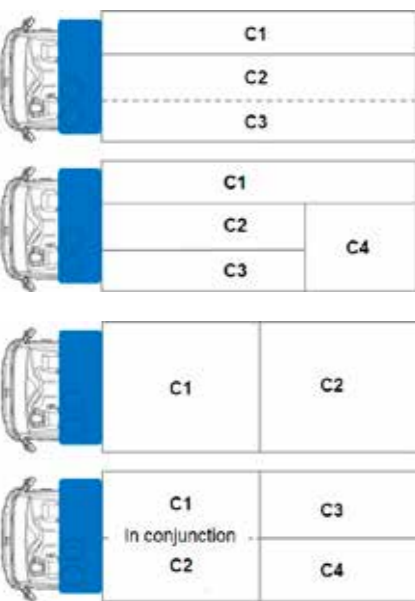


1	FRIGOBLOCK refrigeration device type FK / HK / EK
2	Flat evaporator type RE
3	Alternator
4	Mains – 0 – alternator control box (with universal remote control unit)
5	Universal remote control unit in the driver's cab
6	Inverter filter (for operation via AW alternator)

### View of single compartment vehicle (example: FK) C1 & C2 in conjunction



### View of multi-compartment vehicle (example FK)



## Controls

### Mains – 0 – alternator control box



1	Motor protection switch (optional)
2	Universal remote control unit
3	Mains-0-alternator selector switch

The 400-volt CEE socket outlet (not shown) is installed at the truck body.

### Universal remote control unit

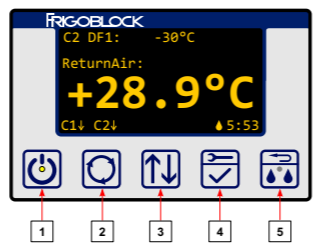
The universal remote control unit is a control point of the refrigeration device and can be used with single and multi-compartment refrigeration devices. It can be fixed at different places such as

- In the driver's cab,
- In the mains-0-alternator control box, or also as
- Tail remote control unit (including in the cargo area).

The universal remote control unit has the following functions:

- Switches the refrigeration device on and off
- Switches the compartments on and off
- Presets the setpoint temperatures of the different compartments
- Changes the speed of the motors of the refrigeration device
- Manually starts or stops the defrosting mode
- Displays the status of the refrigeration device
- Displays the status of the compartments

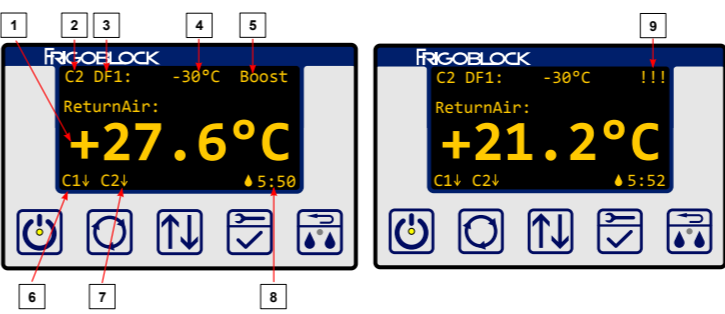
## Functional description



Some switches have multiple functions.

1		Press briefly: Switches the refrigeration device on/off - LED flashes in alternator mode at the moment of switching on - LED gives constant light when the refrigeration device is switched on
2		Press briefly: change the displayed compartment Press and hold: displayed compartment On / Off
3		Press briefly: temperature setting Press and hold: change the basic setpoint
4		Press briefly: enables the speed Press and hold: opens the menu Confirms the entry of a menu item
5		Press briefly: defrost - LED gives constant light when defrost is active. Back from this menu item

## Displays



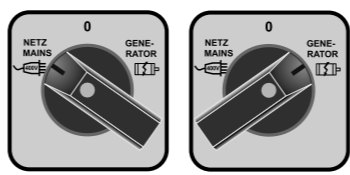
1	-14.1°C	Air return flow to the displayed compartment
2	C3	Selected compartment and other refrigeration devices Selected basic setpoint temperature of the displayed compartment • CH1 = chill temperature 1 • CH2 = chill temperature 2 • DF1 = deepfreeze temperature 1 • DF2 = deepfreeze temperature 2 • HU = heating • OTHER = other • OFF = compartment off
3	CH1	
4	-25°C	Setpoint temperature of the displayed compartment
5	WHISPER	Selected speed of the electric motors • WHISPER = slow speed • DISTRIB = normal speed • BOOST = high speed
6	C1 C1	Compartment status • Gives constant light = compartment is switched on • Inverted color = compartment is switched off
7		Operating state of the compartment ↑ Compartment in heating mode ↓ Compartment in refrigeration mode → Temperature attained - Refrigeration device switched off ♦ Compartment in defrost mode
8	5:50	Time to the next automatic defrost cycle with activated defrost function. With defrost function disabled: time of day
9	!!!	A fault is active

## System operation

The purpose of the FRIGOBLOCK refrigeration device is to refrigerate or heat a vehicle body. Energy is supplied electrically from the

- mains / (external supply 32 A),
- vehicle alternator

Select the required source at the mains-0-alternator selector switch.



### MAINS mode (supply from 400-V-CEE socket outlet)

Use this mode whenever a CEE socket outlet is available. Insert the mains cable with the switch set to "0" and set the switch to "mains". The controller displays that the unit is ready for operation. If "phase fault" is displayed, the pins marked in red in the CEE plug should be turned by means of a screwdriver.



### Alternator mode (while driving)

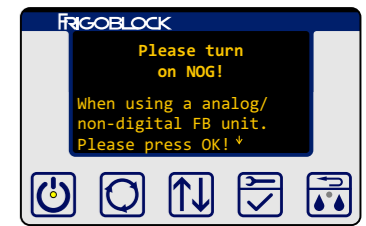
**⚠ Pull the mains plug before you drive off**  
Switch: at "Alternator" position

Articulated and tractor-trailer units: Ensure that the connecting cables (coiled cables) are plugged in. If they are not, connect them as required.

Start the truck engine  
The refrigerator device(s) can be operated via the universal remote control unit(s) in the driver's cab while the vehicle is driving on the road. In drawbar combinations, a second universal remote control unit for cooling the refrigeration device at the trailer is provided in the drivers cab.

In tractor and trailer units it is possible that a refrigeration device with electronic control unit or a refrigeration device with mechanical thermostat is provided at the trailer. If the mains-0-alternator switch at the mains-0-alternator control box is at "alternator" position, a refrigeration device with mechanical

thermostat will prompt the user to switch on the mains-0-alternator switch. If really a refrigeration device with mechanical thermostat (conventional refrigeration device) is provided at the trailer, press the button to confirm this. Now the refrigeration device with mechanical

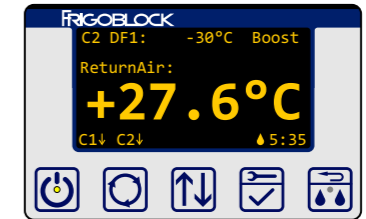


thermostat can be switched on and off at the second remote control unit. It is also possible to manually start defrost mode of the refrigeration device

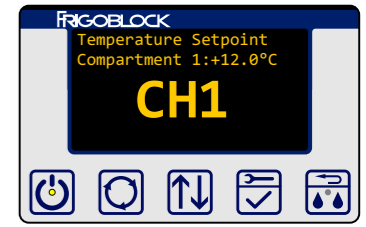
## Operation

The different compartments can be switched on, the temperatures and speeds set at the universal remote control unit; besides faults can be viewed and settings made.

When the remote control unit is switched on, the last operation parameters are restored.



The setpoint temperature for the selected compartment can be changed by pressing the button. A setpoint temperature is suggested in the display.



Press the button to select one of five different setpoint temperatures. The menu also supports the setting of an individual setpoint and the switching off of the compartment.

### Presetting temperatures

Preset the setpoint temperatures for the compartments.

Select a compartment in which you want to change the setpoint temperature.

Select the compartment by briefly pressing the button.

Note:  
You can only select C1 in a single-compartment vehicle. With 2-evaporator refrigeration devices in a single-compartment vehicle, compartment 2 operates as slave of compartment 1.

The selected compartment is displayed.

The following setpoint temperatures are available:

- CH1 = chill temperature 1
- CH2 = chill temperature 2
- DF1 = deepfreeze temperature 1
- DF2 = deepfreeze temperature 2
- HU = heating
- OTHER = adjustable setpoint
- OFF = compartment off

If you are in this menu, you can also scroll through the setpoint temperatures in reverse order by pressing the button.

The temperature associated with each is also displayed.

The setpoint temperatures can be changed in the menu after entering a pin code (if one has been assigned).

