

Series FCU5xxx

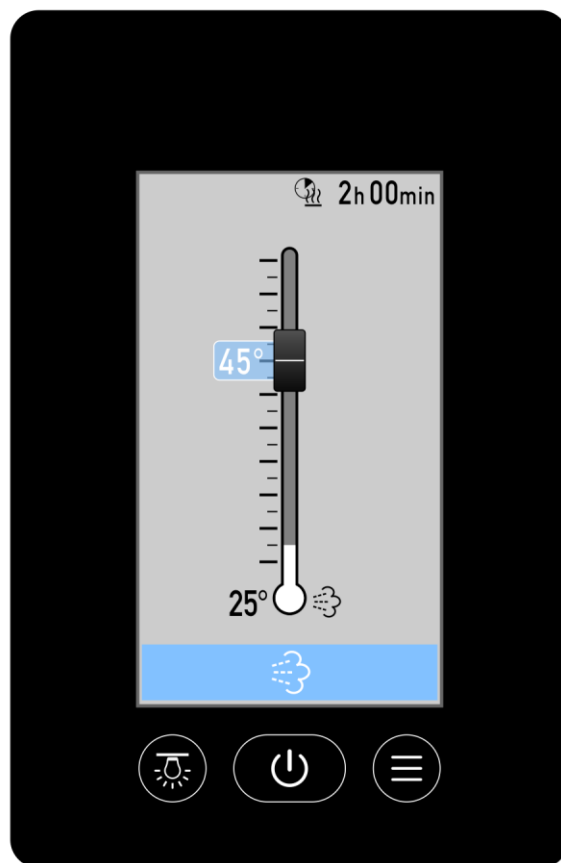
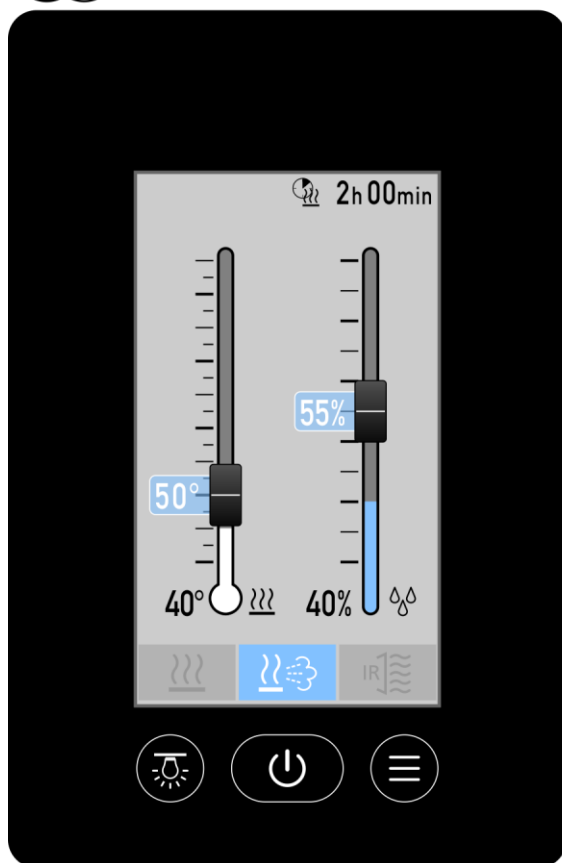
Operating Manual

Sauna
FCU5000

Sauna & Humidity
FCU5200

Sauna, Humidity & IR
FCU5400

Steam Bath
FCU5000-STEAM



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reviewed

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Germany

The original language of these instructions is German. We cannot accept any liability for other languages.

Table of contents

1	Safety.....	5
1.1	Explanation of symbols.....	5
1.2	Requirements for operator and technicians	6
1.3	Intended use	6
1.4	Changes and alterations.....	7
1.5	Occupational safety and special risks	7
1.6	Information about the operating manual and installation instructions	8
2	Identification.....	9
2.1	Specification plate.....	9
3	Technical data	9
4	Structure and function.....	10
4.1	Function	10
4.1.1	Sauna	10
4.1.2	Sauna with humidity (only FCU5200 and FCU5400)	10
4.1.3	Infrared (only FCU5400).....	10
4.1.4	Steam bath (only FCU5000-STEAM)	10
4.2	Operating and display elements.....	11
4.2.1	FCU5xxx Design Touch	11
4.2.2	Operating keys for the sauna controls.....	12
4.2.3	Symbols in the status bar	13
5	Operation	14
5.1	Safety and instructions	14
5.2	Switch on and off the sauna control system	15
5.2.1	Switch on the sauna control system.....	15
5.2.2	Switch off the sauna control system.....	15
5.3	Set bath mode	16
5.4	Menu: settings	17
5.4.1	Fan and light settings	18
5.4.2	Set timer	18
5.4.3	Aroma settings (optional)	19
5.4.4	Coloured light settings (optional).....	20
5.4.5	Sand-Timer (optional).....	20
5.4.6	Eco Mode (only with bath mode sauna)	20
5.5	Menu: Basic settings	20
5.5.1	LCD brightness settings	21
5.5.2	Language settings	21
5.5.3	Info menu.....	21
5.6	Menu: Time settings	22
5.6.1	Maximum permissible heating period.....	22
6	Maintenance	23
7	Faults.....	23

Table of contents

7.1	Safety	23
7.2	Messages and instructions on the display	24
7.3	Acknowledge message	24
7.4	Error messages.....	25
7.5	Acknowledge error message	26
8	Decommissioning and disposal	26
9	General	27
9.1	Limitation on liability	27
9.2	Copyright protection	27
9.3	Scope of delivery	27
9.4	Spare parts	28
9.5	Customer service	28
10	Settings	29
10.1	<i>Adjusting range: sauna</i>	29
10.2	<i>Adjusting range: Sauna with humidity</i>	29
10.3	<i>Adjusting range: Infrared</i>	29
11	Declaration of Conformity	29
	Index.....	30
	Notes:	31

1 Safety

1.1 Explanation of symbols

Warnings

Warnings are marked by symbols in this manual. The instructions in this operating manual are introduced by signal words that indicate the severity of the danger.

Always follow the safety notes and proceed with caution in order to avoid any accidents, personal injuries and damage to property.



DANGER!

... shows an imminently hazardous situation that can result in severe injuries or even death, if not avoided.



WARNING!

... shows a potentially hazardous situation that can result in severe injuries or even death, if not avoided.



CAUTION!

... shows a potentially hazardous situation that can result in minor injuries, if not avoided.



WARNING!

... shows a potentially hazardous situation that can result in property damage, if not avoided.

Tips and suggestions



NOTE!

... underlines useful tips and suggestions as well as information for efficient and proper operation.

1.2 Requirements for operator and technicians

This device can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning the safe use of the device and understand the hazards involved. Children shall not play with the device. Cleaning and user maintenance shall not be carried out by children without supervision.

Read this operating manual carefully before switching on. Adherence to all the safety and operating instructions specified in this operating manual is a basic prerequisite for safe operation and safe working.

Please contact your customer service in case of doubts.

Inadequate qualification



WARNING!

Risk of injury in case of inadequate qualification!

Improper handling could lead to considerable personal injuries and damage to property.

For this reason:

The assembly, installation, Start-up as well as troubleshooting, maintenance and repairs must only be carried out by qualified persons, unless otherwise specified.

1.3 Intended use

The FASEL sauna control units in the FCU5xxx series are designed exclusively for operation and control of sauna cabins and saunas with humidity cabins, depending on the model. The control units are approved for operation in private homes and businesses.

Intended use



WARNING!

Risk due to non-intended use.

Any use apart from the intended use and/or any other use of the sauna control system can result in dangerous situations.

For this reason:

- Use sauna control system only as described.
- The sauna control units may only be operated within the permissible ambient temperature limits and humidity limits→ Refer to page 9.
- All specifications in the operating manual and installation instructions must strictly be adhered to.
- Switch off the main switch (230V) or deactivate fuses when not in use.
- Make sure that there is nothing in the stove before switching on the sauna control unit.

Claims of any type due to damage as a result of non-intended use are exempted. The operator bears sole responsibility for damages caused by non-intended use.

1.4 Changes and alterations

Changes and alterations to the sauna control system or to the installation can lead to unexpected risks.

Always obtain the written permission of the manufacturer before any technical changes and alterations to the sauna control system.

1.5 Occupational safety and special risks

The safety notes and warnings specified here and in the following sections of this manual must be taken into account in order to reduce health hazards and avoid dangerous situations.

Following instructions are for your own safety and for the safety of the system and must be adhered to:

Electric voltage



DANGER!

Danger to life due to electric shock.

There is imminent danger to life in case of direct contact with live parts. Damage of insulation or individual parts could pose danger to life.

For this reason:

- For disconnecting from the mains, the power supply line must be equipped with a fuse having a contact opening according to the requirements of overvoltage category III for full separation.
- Disconnect power supply to the system before any work (switch off the fuse in the junction box) and secure against restarting. Check if the equipment is disconnected from the power supply. Disconnect the control unit from the mains before opening the housing.
- In case of damages to the insulation, immediately switch off power supply and initiate repairs.
- Works on electrical machinery should be carried out only by skilled personnel.
- Never bypass or switch off fuses.
- Adhere to the correct current specification while changing the fuses.
- Keep moisture away from live parts as it can lead to short-circuits.



WARNING!

If there is a short-circuit in a 230V/400V load, the contact of a relay can fuse due to the high short-circuit current. Even the safety relay can fuse if restarted before removing the short-circuit. This will lead to steady state of the consumer. Switch off the automatic circuit breaker in the junction box. Send the device back to the factory for checking/repair.

Improper operation



WARNING!

Improper operation can result in serious injuries.

For this reason:

- Read and follow the operating manual.

1.6 Information about the operating manual and installation instructions

This FASEL control unit comes with an operating manual and installation instructions.

The operating manual is intended for users and provides important advice on handling the FASEL control unit.

The installation instructions describe the process of assembly, installation, commissioning, troubleshooting and repairs and are intended exclusively for professionals.

Adherence to all the safety and operating instructions specified in this operating manual is a basic prerequisite for safe operation and safe working.

In addition, the local accident prevention regulations and general health and safety requirements must be adhered to wherever the control unit is in use.

Read this operating manual carefully before switching on. The operating manual and installation instructions are integral parts of this produce and must be kept accessible at all times in the immediate vicinity of the control unit.

The device will have a different numbers of connections and functions, depending on the version. The keys and display messages may vary and might differ from the diagram, also depending on the version.

In case that the control unit is passed on to third parties, the operating manual and the installation instructions must also be handed over.

Components by other providers have their own operating manuals, as well as safety requirements and regulations that must also be adhered to.

2 Identification

2.1 Specification plate

The specification plate is located on the left-hand side of the control unit.

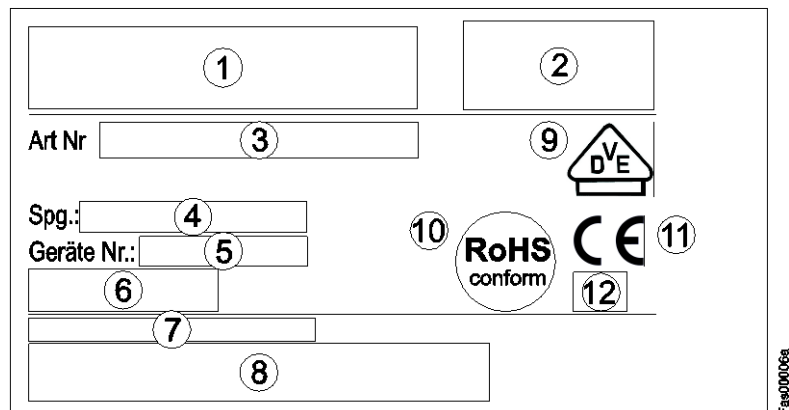


Fig. 1: Control unit specification plate

- 1 Type designation
- 2 Company logo
- 3 Item number
- 4 Voltage and maximum current
- 5 Device number
- 6 Barcode
- 7 Item number
- 8 Bar code item number
- 9 VDE mark (for devices that are VDE-certified)
- 10 RoHS designation
- 11 CE mark
- 12 Protection class

3 Technical data

Description	Type
	FCU5xxx series
Ambient temperature	0°C to +40 °C With protective coating -20°C to +40°C
Rel. humidity	max. 80% rel. hum. (non-condensing)

Table 1: Technical data

4 Structure and function

4.1 Function

Depending on the variant, the control system is suitable for the following bath modes:

- Sauna
- Sauna with humidity
- Infrared
- Steam bath

4.1.1 Sauna

In the "Sauna" bath mode, the cabin is heated to the desired temperature (set point temperature) using a stove. To maintain the desired temperature in the cabin, the control unit switches the stove on and off.

4.1.2 Sauna with humidity (only FCU5200 and FCU5400)

In the "Sauna with humidity" bath mode, the cabin is heated to the desired temperature (set point temperature) using a stove. Besides, the desired air humidity (set point humidity) is generated using an evaporator.

Control unit with humidity control (with humidistat)

In these control units, the evaporator is controlled using a connected humidistat.

Control unit with time-controlled humidity (without humidistat)

The evaporator in these control units is time-controlled. The volume of steam is set by numbers from 1 to 9. The setting "1" creates a short burst of steam in the cabin. The setting "9" means that the evaporator is in continuous operation, producing the maximum volume of steam.

4.1.3 Infrared (only FCU5400)

The bath mode "Infrared" involves heating the cabin using one or several heat sources. The heat sources can be wall-mounted or recessed in the wall. The status will display "Infrared heater" for as long as the heat sources remain in operation.

A base temperature can also be set. The sauna stove starts heating as soon as the temperature falls below this value. It switches off as soon as the base temperature is reached.

4.1.4 Steam bath (only FCU5000-STEAM)

In the "Steam Bath" mode, the cabin is heated to the desired temperature (set point temperature) using an evaporator. To maintain the desired temperature in the cabin, the control unit switches the evaporator on and off.

4.2 Operating and display elements

4.2.1 FCU5xxx Design Touch

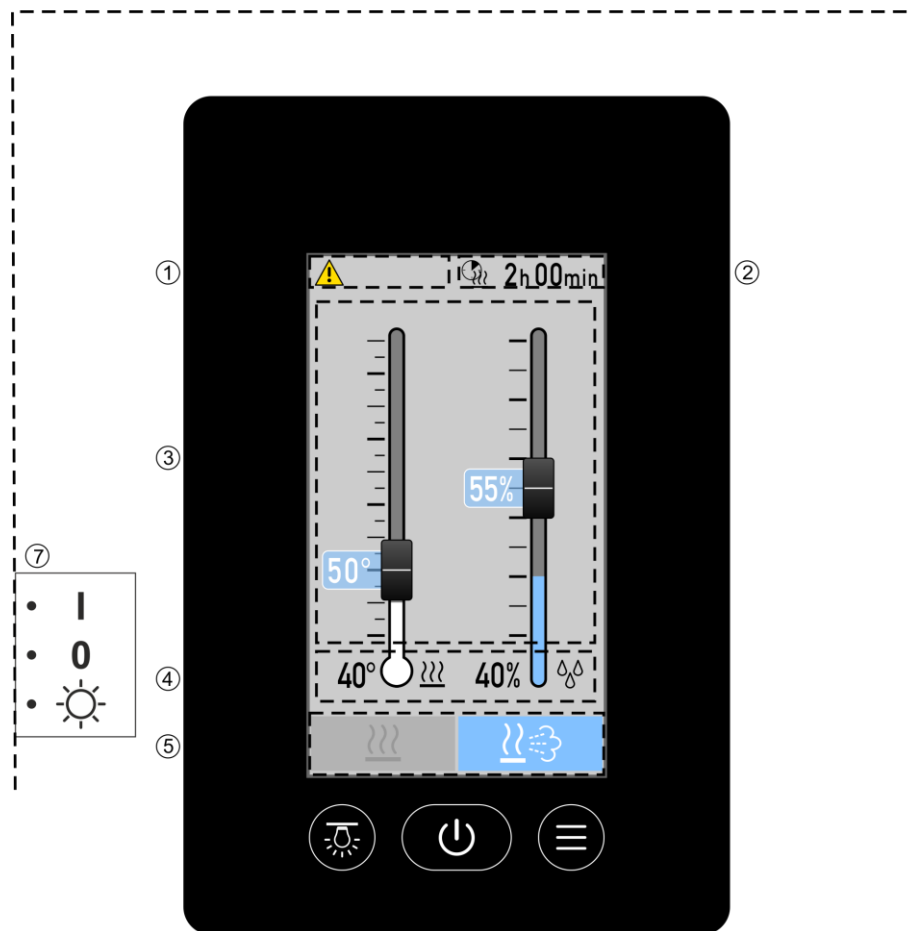


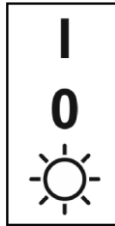
Fig. 2: View of the controls for the FCU5xxx Design Touch

- | | | | |
|---|--|---|---|
| 1 | Status bar | 5 | Display of bath modes |
| 2 | Heating time / Remaining heating time | 6 | Basic functions: cabin light / standby / menu |
| 3 | Temperature / Humidity setting | 7 | Main switch on the basic control unit |
| 4 | Display of temperature / humidity in the cabin | | |

Structure and function

4.2.2 Operating keys for the sauna controls

The sauna control unit is equipped with the following operating keys:

Key / switch	Description	
Main switch on the basic control unit (7)		
	0	Power switch "OFF" Use this switch to turn off the mains connection to the control unit and the cleaning light.
	I	Power switch "Control unit ON" This switches on the mains connection.
		Switch "Cleaning light ON" Use this switch on the cleaning light. The control unit is switched off.
Key, bathing forms (5)		
	"Bath mode sauna" key	
	Display	Meaning
	Grey	■ Bath mode not selected. ■ Press the key to select this bath mode
	Blue	■ Bath mode selected. ■ The bath mode is activated by pressing this key.
	Orange	■ Bath mode is active. ■ The bath mode is deactivated by pressing this key.
	Flashing Blue/orange	■ The timer is active. ■ Bath mode starts at the set time.
	Key "Bath mode sauna with humidity" (only FCU5200 and FCU5400) Function as described for "Bath Form Sauna".	
	Key "Bath mode infrared" (only FCU5400) Function as described for "Bath Form Sauna".	
	Key "Bath mode steam bath" (only FCU5000-STEAM) Function as described for "Bath Form Sauna".	

Key / switch	Description
Keys, basic functions (6)	
	Key "Cabin light" Switch light in the cabin on and off. The light is switched on and off by pressing this key. To adjust brightness, press and hold the key until the light settings mode opens.
	Key "Menu settings" Open "Menu settings".
	Key "Control unit standby" ■ Switch the control unit on and off. ■ The control unit will switch automatically to standby mode if it remains without active program for 2 minutes.

Table 2: Operating keys for the sauna controls

4.2.3 Symbols in the status bar

The following symbols can be shown in the status bar (1 in fig. 2):

Display elements	Description
	Heating time / Remaining heating time
	Light is active
	Fan is active
	Fragrance pump is active
	Drying program is active
	Eco Mode is active
	Water deficiency signal
	Active error / warning Click on the symbol to open the error message.

Table 3: Symbols in the status bar.

5 Operation

5.1 Safety and instructions

Electric voltage

**DANGER!****Danger to life due to electric shock.**

There is imminent danger to life in case of direct contact with live parts.

For this reason:

- The control system may be opened only by authorised electricians.
 - Works on electrical machinery should be carried out only by skilled personnel.
-

Improper operation

**WARNING!****Improper operation can result in serious injuries.**

For this reason:

- Perform all operating steps precisely as described in this operating manual.
-

Risk of fire

**WARNING!****Risk of injury due to fire.**

Objects on the heater or in the immediate vicinity of the heater can cause a fire and in turn result in injuries.

For this reason:

- Always keep objects away from the heater.
-

Physical injuries

**WARNING!****Covering the temperature sensor and/or humidistat will lead to a risk of injury.**

Covering the temperature sensor and/or humidistat will lead to a higher temperature and humidity. These elevated values may cause physical harm or severe injuries.

For this reason:

- Do not cover the temperature sensor or humidistat.
 - Ensure free air circulation.
-



NOTE!

The temperature and humidity readings shown on the thermometers and hygrometers installed additionally in the cabin may differ from those on the control unit. This may have the following reasons:

Temperature differences of between 60K and variance in humidity of up to 40% may be encountered from the floor to the ceiling or between the stove and the opposite wall, depending on the cabin

Instruments with pointers do not respond as sensitively, compared to the electronic measurement and display system used in the control unit.

5.2 Switch on and off the sauna control system

5.2.1 Switch on the sauna control system

Ensure that the stove, its immediate surroundings and the sensors are free of objects.

1. Use the "Control unit ON" key to switch on the sauna control unit. → Refer to page 11 (fig. 2) or page 12 (section 4.2.2).
2. Select bath mode on the display (refer to table 2).
3. To select the bath mode, press and hold the bath mode key until the key lights up orange (refer to table 2).

5.2.2 Switch off the sauna control system



WARNING!

Repeated improper shutdown can lead to premature damage to electronic parts.

For this reason:

- Switch off sauna control system as described.



WARNING!

Cabin damage, e.g. mould growth due to premature ending of the drying function.

After completion of the "Sauna with humidity" bath mode, the cabin is automatically dried for a defined period and at a defined temperature. This drying function helps to avoid damage to the cabin, e.g. mould growth.

For this reason:

- Do not end drying function prematurely.
- The drying function may only be ended if the cabin is operated afterwards in the "Sauna" bath mode.
- A message appears on the screen if the drying function has been accidentally stopped. Follow the instructions on the display to restart the drying function.

A bath mode is selected and active (orange)

1. Press the key for the active bath mode. This stops the bath mode. The key is now blue.
2. Use "Control unit standby" or "Power OFF" to switch off the sauna control unit → Refer to page 11, fig. 2 or page 12 (section 4.2.2).

5.3 Set bath mode

The control unit is switched on.

1. Select preferred bath mode on the display (refer to table 2).
2. Use the adjustable slider in the "Temperature / humidity settings" section (refer to fig. 2) to set the preferred temperature / humidity (refer to table 4).
3. The current values for temperature/humidity are shown in the section "Display temperature/humidity in the cabin (refer to fig. 2). The values are also shown as icons in the display.
4. Press and hold the section "Heating period / Remaining heating period" (refer to fig. 2) until the menu opens in order to adjust the heating period (refer to page **Fehler! Textmarke nicht definiert.**).



NOTE!

The program automatically skips back to the home page if there have been no key operations for several seconds. (It skips to the timer menu if the control unit has an active timer).

Bath mode	Slider symbol	Meaning
	Sauna bath mode	
		Set the target temperature in the sauna.
	Bath mode sauna with humidity (only FCU5200 and FCU5400)	
		Set the target temperature in the sauna.
		Set the target humidity in the sauna.
	Bath mode infrared (only FCU5400)	
		Set the base temperature in the sauna.
		Set the maximum temperature in the sauna cabin using the infrared heater
	Bath mode steam bath (only FCU5000-STEAM)	
		Set the target temperature in the steam bath.

Table 4: Temperature / Humidity setting

5.4 Menu: settings

The following entries may be shown in the settings menu, depending on the configuration:

Symbol	Description	Position
	Fan settings	■ Press briefly on the key to switch the fan on/off ■ Press and hold the key to open the fan settings
	Light settings	■ Press briefly on the key to switch the cabin light on/off ■ Press and hold the key to open the light settings
	Timer settings (optional)	■ Opens the timer menu
	Coloured light manual mode (optional)	■ Press briefly on the key to switch the mode on/off ■ Press and hold the key to open the coloured light settings
	Coloured light automatic mode (optional)	■ Press briefly on the key to switch the mode on/off ■ Press and hold the key to open the coloured light settings
	Sand-Timer (optional)	■ Opens the menu Sand-Timer.
	Aroma settings (optional)	■ Opens the aroma settings menu
	Seat heating settings (optional)	■ Press briefly on the key to switch the seat heating light on/off ■ Press and hold the key to open the temperature settings for the seat heater.
	Freely configurable option (optional)	■ Press briefly on the key to switch the options on/off
	Eco Mode (only with bath mode sauna)	■ Press briefly on the key to switch the Eco Mode on/off
	Basic settings:	■ Opens the basic settings menu
	Back menu	■ Jumps to the next menu ■ This function is available in every menu

Table 5: Menu: settings

Operation

5.4.1 Fan and light settings

The menu is used to adjust the cabin light and fan in 9 levels.

1. Use the slider to set the preferred level.
2. Use the back key ← or menu key ≡ to close the menu at any time. The set values for the current bath mode will be saved automatically.

5.4.2 Set timer

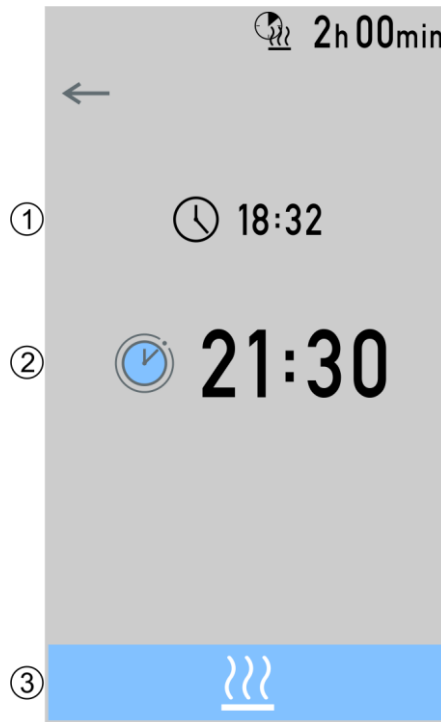


Fig. 3: Timer menu

- 1 Current time
2 Set start time

- 3 Bath mode key



NOTE!

The service fitter must not approve the timer without additional fire protection measures (e.g. guard above the stove to prevent covering) and it may therefore be blocked (menu is not shown).

The timer starts the sauna with the active bath mode at the set start time.

1. Check the current time (refer to fig. 2). Adjust the time as necessary.
2. Check the preferred start time (refer to fig. 3). Adjust the start time as necessary.
3. Press the appropriate symbol to change the time / start time.
The time setting menu opens (refer to page **Fehler! Textmarke nicht definiert.**).
4. Press the preferred bath mode (refer to fig. 3) to start the control unit if a start time is set.

5.4.3 Aroma settings (optional)

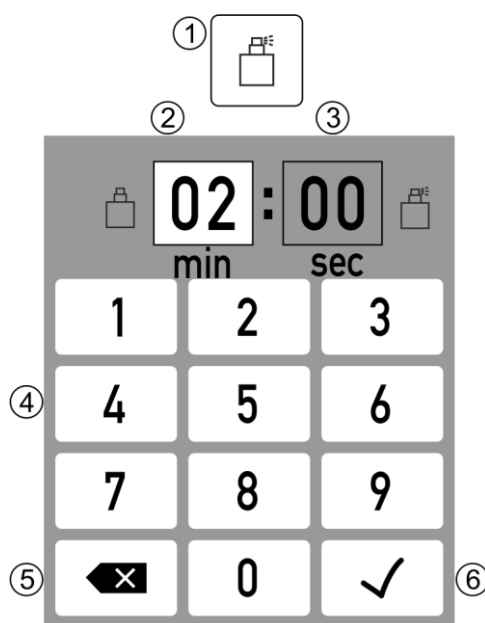


Fig. 4: Menu for aroma settings

- | | | | |
|---|---|---|---------------|
| 1 | Menu symbol: aroma pump | 4 | Number field |
| 2 | Aroma pump inactive in minutes (active field) | 5 | Backspace key |
| 3 | Aroma pump active in seconds (passive field) | 6 | Enter key |

The injection times for the aroma pump are adjusted in the aroma settings menu. Available settings are the interval time with inactive aroma pump in minutes, and the aroma pump with active injection in seconds.

1. Touch one of the time fields 2/3 (refer to fig. 4) to activate.
2. Enter the preferred time in the number field (4) and using the backspace key (5).
3. The value is saved once you press the enter key (6).
4. Use the back← key to close the menu without saving at any time.

Only FCU5000-STEAM:

Press and hold the menu symbol for the aroma pump (refer to fig. 4) to manually activate the aroma pump for the duration of your keypress.

Operation

5.4.4 Coloured light settings (optional)

Make the following settings in the coloured light menu:

Symbol	Description	Position
 	Coloured light automatic speed setting	Choose between the short and the fast automatic mode.
	Manual coloured light setting	Press briefly on the slider to switch the colour.

5.4.5 Sand-Timer (optional)

Make the following settings in the Sand-Timer menu:

Symbol	Description	Position
5:00 10:00 15:00	Sand-Timer start	■ Press briefly on the key to start the Sand-Timer with the selected time. ■ After the selected time, an acoustic feedback sounds.
	Sand-Timer stop	■ Stop the Sand-Timer.

5.4.6 Eco Mode (only with bath mode sauna)

If this icon has been activated, the heating will automatically only remain on for another 15 minutes after the set target temperature has been reached.

5.5 Menu: Basic settings

The following entries may be shown in the basic settings menu, depending on the configuration:

Symbol	Description	Position
	LCD brightness settings	■ Opens the LCD brightness menu.

DE EN FR	Language settings: - German - English - French	- Opens the language settings menu. - The current language is shown in the basic settings menu.
PIN ↓ 0000 APP PIN	App Pin Reset	In this menu the PIN for the app can be reset to "0000".
INFO	Info menu	- Opens the info menu - This menu shows information about the control unit, configuration, sensor systems and add-ons.
	Service menu	- Opens the service menu - This menu is used for commissioning / configuration and can only be accessed by the service fitter.

Table 6: Menu: Basic settings

5.5.1 LCD brightness settings

The menu is used to adjust the LCD brightness in 9 levels.

1. Use the slider to set the preferred level.
2. Use the back key  or menu key  to close the menu at any time.

5.5.2 Language settings

The language settings menu is used to adjust the control unit language.

1. Use the matching symbol to set the correct language.
2. Use the back key  or menu key  to close the menu at any time.

5.5.3 Info menu

The info menu is used to access all information about the control unit used. Use the key  to scroll one page forward.

The following information is shown:

1. Info: This shows the control unit's hard and software version.
2. Configuration: This shows the control unit's basic configuration.
3. Inputs and outputs: This shows the configuration of the inputs and outputs.
4. Sensor: This shows all available sensor values /temperature / humidity).
5. Use the back key  or menu key  to close the menu at any time.

5.6 Menu: Time settings

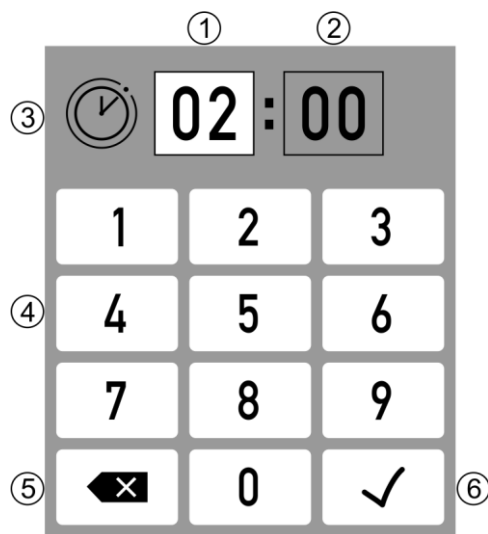


Fig. 5: Menu for time settings

- | | | | |
|---|------------------------------|---|---------------|
| 1 | Active field | 4 | Number field |
| 2 | Passive field | 5 | Backspace key |
| 3 | Display for the current menu | 6 | Enter key |

The time settings menu is used to set various values and may appear at multiple points of the menu navigation. The current submenu is shown at position 5 (refer to fig. 5).

1. Touch one of the time fields 1/2 (refer to fig. 5) to activate.
2. Enter the preferred time in the number field (4).
3. The value is saved once you press the enter key (6).
4. Use the back← key to close the menu without saving at any time.

5.6.1 Maximum permissible heating period

Once the bath mode has been started, the display shows the remaining heating period instead of the heating period. The heating period can only be changed in standby mode.

EN 60335-2-53 "Special requirements for sauna heaters and infrared cabins" permits the following maximum heating periods:

Max. heating period	Description
More than 12 hours	Public cabins supervised by instructed staff.
Max. 12 hours	Hotels, apartment blocks and such like
Max. 6 hours	All other cabins / domestic homes

Table 7: Maximum heating period

The control units are delivered with a maximum adjustable heating period of 6 hours. Please contact the fitter or the dealer of your sauna or infrared system if you require a heating period of more than 6 hours.

6 Maintenance

The sauna control systems are maintenance-free.

Cleaning

Aggressive cleaning agents and media



WARNING!
Device damage possible!

Aggressive cleaning agents and media can damage or destroy components or electric cables.

For this reason:

- Do not use any cleaning agents or media with aggressive substances.

1. Turn off the control unit and secure it against being switched on again (switch off the automatic circuit breakers.)
2. Clean the housing only from outside using a damp soft cloth. The housing must not be opened.

7 Faults

7.1 Safety

General



WARNING!
Risk of injury due to improper troubleshooting!

Improper troubleshooting can result in serious injuries or even death.

For this reason:

- In case of faults, switch off the control unit, disconnect it from the mains and secure against restarting. Contact customer service.
- Repair work must be carried out only by qualified personnel, unless otherwise specified.
- Before starting work make sure there is sufficient space for the installation.
- Pay attention to order and cleanliness at the place of installation. Loose components and tools lying around or on top of each other are safety hazards.
- If parts are to be replaced: Ensure correct installation of spare parts. Install all fastening elements properly again. Only use original spare parts.
- Ensure that all covers are properly installed before restarting.



WARNING!

If there is a short-circuit in a 230V/400V load, the contact of a relay can fuse due to the high short-circuit current. This can lead to steady state of the consumer. Switch off the automatic circuit breaker in the junction box. Contact customer service.

Faults

7.2 Messages and instructions on the display

Messages and instructions may be shown on the display that require the operator to take action.

Messag- es/instruction s	Possible causes	Measures	To be carried out by
 Water deficiency	Evaporator without water	Fill water according to the operating manual of the evaporator.	Operator
		Check water inlet / magnetic valve on the evaporator.	Specialist/ electrician
 Drying function interrupted	After completion of the “Sauna with humidity” bath mode, the cabin is automatically dried for a defined period and at a defined temperature. This drying function helps to avoid damage to the cabin, e.g. mould growth. This drying function was interrupted prematurely.	Follow the instructions on the display:  Restart the drying function  Cancel the drying function	Operator

Table 8: Messages and instructions

7.3 Acknowledge message

1. Eliminate the cause of the fault.
2.  -Press the key for approx. 2 seconds. Message expires.

7.4 Error messages

This section describes possible faults and troubleshooting measures.

Contact the fitter or dealer for your sauna system in case of faults that cannot be dealt with based on the following descriptions. Refer to the invoice, delivery note or the back of this manual for the address.

In case of a fault during operation, the display will alternately show the cause, error number and troubleshooting option.

If the cause cannot be remedied by the user, write down the error number and contact your service technician (fitter or dealer of your sauna system).

No.	Fault	Possible causes	Troubleshooting	To be carried out by
000	Internal time error	Internal time error		Service engineer
100	STB circuit open, STB	The connection to the safety temperature limiter (STB) is interrupted or the thermal fuse is destroyed due to a excessively high temperature.	■ Check STB. ■ Check cable. ■ Check clamps 29 and 30.	Qualified electrician/service engineer
200	Stove sensor short-circuit	Stove sensor short-circuit	■ Check cable. ■ Check clamps 27 and 28.	Qualified electrician/service engineer
201	Stove sensor interruption	Stove sensor cable break Clamp contacts	■ Check cable. ■ Check clamps 27 and 28.	Qualified electrician/service engineer
210	Short circuit in bench sensor	Bench sensor short circuit	■ Check cable. ■ Check clamps 31 and 32.	Electrician / service engineer
211	Interruption in bench sensor	Cable breakage in the bench sensor Clamp contacts	■ Check cable. ■ Check clamps 31 and 32.	Qualified electrician/service engineer
220	Short circuit in wall sensor	Wall sensor short circuit	■ Check cable. ■ Check clamps 33 and 34.	Qualified electrician/service engineer
221	Interruption in wall sensor	Cable breakage in the wall sensor Clamp contacts	■ Check cable. ■ Check clamps 33 and 34.	Qualified electrician/service engineer
300	Humidistat	The humidistat is interrupted or has short circuited	Check clamps 21–23. Note: The control unit can remain in operation as a control unit with time-controlled humidity. Acknowledge the error Disconnect the humidistat.	Qualified electrician/service engineer
400	External error message	Option input on the control unit, e.g. gas	Acknowledge error. Eliminate malfunction in external device.	User / Service engineer

Decommissioning and disposal

No.	Fault	Possible causes	Troubleshooting	To be carried out by
		burner		
11C	I ² C error	Error in I ² C Bus	Switch off mains, wait for a while, switch on and contact the service engineer if the error occurs again.	Service engineer
485	RS485 error	Error in RS485 bus	Switch off mains, wait for a while, switch on and contact the service engineer if the error occurs again.	Service engineer
800	Drying did not end correctly.	Drying temperature was not reached, program cancellation by the user or error	Execute the drying program or acknowledge the error. Start the sauna program if the cabin is damp.	User
999	Internal time error	Internal time error		Service engineer

Table 9: Fault messages

7.5 Acknowledge error message

1. Eliminate the cause of the fault.
2. -Press the key for approx. 2 seconds. Message expires.

8 Decommissioning and disposal



- Do not dispose of the sauna control system with regular garbage.
- Dispose the control system in accordance with the respective country-specific regulations.

9 General

9.1 Limitation on liability

All the specifications and directions in this manual have been prepared based on the statutory standards and regulations, the present state of technology, as well as our many years of knowledge and experience.

The manufacturer is not responsible for damage due to:

- Non-adherence to the operating and installation instructions
- Unintended use
- Unauthorised alterations
- Technical changes
- Use of own installation tools (only the provided installation tools are permitted)
- Use of non-licensed spare and wear parts.

The actual delivery package can deviate from the given descriptions and illustrations in case of special designs, additional orders or due to latest technical changes.

Otherwise, the obligations agreed in the delivery contract, the General Terms and Conditions as well as the delivery conditions of the manufacturer and the legal regulations valid at the time of entering into the contract are applicable.

Warranty

The warranty period of the manufacturer shall commence with the dispatch from the manufacturer's place and is valid for 24 months. The dispatch date can be obtained from device number on the type plate.

The manufacturer is not responsible for any warranty claims deviating from this regulation. Warranty claims must be made to the manufacturer of the sauna system or the dealer.

9.2 Copyright protection



NOTE!

All data, texts, drawings, images and other illustrations are copyright protected and are subject to the commercial copyright laws. Any misuse is punishable by law.

Distribution of any kind, even in parts, as well as reproduction and/or sharing the content without the prior written consent of the manufacturer is strictly prohibited.

9.3 Scope of delivery

See the enclosed delivery note for the delivery package.

9.4 Spare parts



CAUTION!

Risk of injury due to incorrect spare parts.

Wrong or defective spare parts can result in damage, malfunctions or total failure as well as hamper safety.

For this reason:

- Only use original spare parts from the manufacturer.
- Repair work at the control unit must be carried out only by qualified personnel.

Order spare parts from the installer or the dealer of the sauna system. For address, see invoice, delivery note or the back of this manual.

9.5 Customer service

For technical details, please contact your dealer or the installer of the sauna system.

For address, see invoice, delivery note or the back of this manual.



NOTE!

For quick processing, have the data of the type plate such as the type, series number, variant etc. ready before making the call.

10 Settings

10.1 Adjusting range: sauna

	min.	max.
Temperature	10°C	110°C
Operating time	00:15 h	06:00 (20:00*)

10.2 Adjusting range: Sauna with humidity

	min.	max.
Temperature	10°C	65°C
Humidity	30% (01 F)	80% (09 F)
Operating time	00:15 h	06:00 (20:00*)
Drying temperature	80°C	110°C
Drying time	0	59 min.
Humidity – temp., sum	according to VDE characteristic EN 60335 – 2 – 53:2003 + A1:2007 image 101	

10.3 Adjusting range: Infrared

	min.	max.
Temperature	40°C	90°C (45°C **)
Base temperature	--	65°C (40°C **)
Operating time	00:15 h	06:00 (20:00*)

* The control units are delivered with a maximum adjustable heating period of 6 hours. Please contact the fitter or the dealer of your sauna system if you require a heating period of more than 6 hours.

** The temperature can be restricted to 45 °C for Austria.

11 Declaration of Conformity

The electronics mounted in the device series FCU5xxx is identical to the certified device series FCU4xxx.

You will find the Declaration of conformity online at www.fasel-gmbh.de in the section “Wellness, Sauna and Spa control units” under “Service / Downloads”.

Index

B		
Bath mode		
Infrared	10	
Sauna	10	
Sauna with humidity	10	
settings	16	
Steam bath	10	
C		
Cleaning	23	
Cleaning light	12	
Conformity declaration	29	
Control unit ON / OFF	12	
Copyright protection	27	
Customer service	28	
D		
Decommissioning	26	
Display elements	11	
Disposal	26	
E		
Electric voltage	7	
Explanation of symbols	5	
F		
Fault messages	26	
Faults	23	
G		
General	27	
H		
Hazard warnings	7	
I		
Identification	9	
Improper operation	7	
Infrared	10	
Instructions		
operation	14	
Intended use	6	
L		
Limitation on liability	27	
M		
Main switch	12	
Maintenance	23	
Menu		
Aroma	19	
Basic settings:	20	
Coloured light	20	
Info menu	21	
Languages	21	
LCD brightness	21	
Light/fan	18	
Settings	17	
Time settings	22	
timer	18	
Menü		
Sanduhr-Timer	20	
Messages and instructions	24	
O		
Occupational safety	7	
OFF	12	
Operating buttons	12	
Operating elements	11	
Operating keys		
bath mode	12	
Main switch	12	
Operation	14	
S		
Safety	5	
operation	14	
Troubleshooting	23	
Sauna	10	
Sauna control system		
switch off	15	
switch on	15	
Sauna with humidity	10	
Scope of delivery	27	
Settings	29	
Spare parts	28	
Specification plate	9	
Status bar	13	
Steam bath	10	
Switch on	15, 26	
Switching off	16	
T		
Technical data	9	
W		
Warnings	5	
Warranty	27	

Notes:

Notes:

Address of the installer or the dealer of the sauna system: