Operating instructions

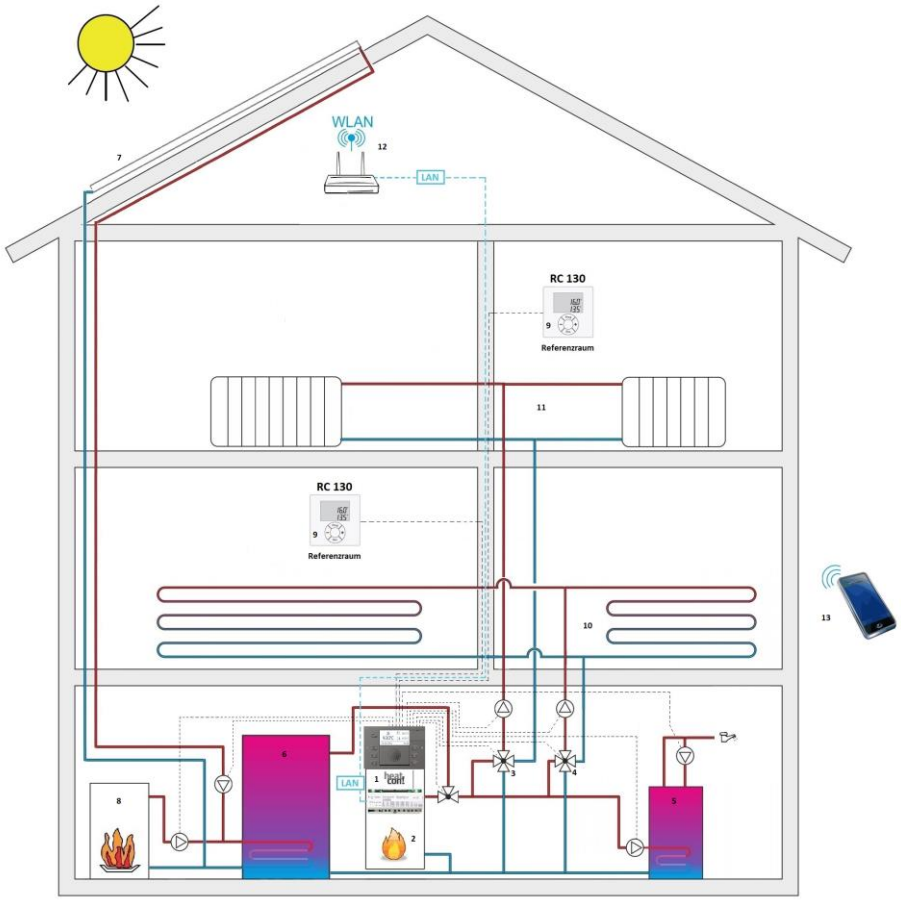
heatcon! EC

MMI 200

Content

1 System description

1.1 System overview



System overview (example)

1	*heatcon! EC*	8	*heatapp! floor*
2	Heat source	9	Radiator
3	Mixer heating circuit 1	10	*heatapp! drive*
4	Mixer heating circuit 2 (Underfloor heating)	11	Wi-Fi router (customer-provided)
5	DHW storage	12	*heatapp! Gateway*
6	Underfloor heating system (FBH)	13	Smartphone/tablet with *heatapp! app*
7	*heatapp! sense*		

1.2 heatcon! System

heatcon! system is a heating controller that is versatile and expandable. The basic unit heatcon! EC 13xx pro is the central control and regulation unit with Ethernet connection for operation via PC and heatapp! app.

heatcon! EC 13xx pro for the control of:

- 2x mixer heating circuit | expandable via EM 100/101 (max. 2)
- 1x direct heating circuit
- 2x 0-10V/PWM output |switchable, expandable via EM 100/101
- Hot water
- Cascade operation (two active energy generators)
- 3x differential control solar/solid (optional)
- Buffer management (optional)
- Contains further data bus connections for system expansion
- can be used as a mini cascade
- Top-hat rail mounting in the power generator

The system can be expanded with further functions and heating circuits by means of expansion modules.

To operate the heatcon! EC can be operated in three ways

- The heatcon! MMI 200 (without network connection) Contents of this description
- The free heatapp! app (network connection required)
- The Internet browser (network connection required)

2 heatcon! MMI

heatcon! MMI

1	Button “Emission measurement / manual mode" button	6	Button "Comfort/Economy temperature"
2	Button "Scenes/operating modes"	7	Button "Set-back temperature"
3	Button "Programming"	8	Button "Hot water daytime temperature"
4	Button "Info"	9	Display
5	Cover Manufacturer connection	10	Rotary button (press & turn)

The *heatcon! MMI* is the control unit for the *heatcon! system* for operation without an Internet browser.
The corresponding menus are called up via the buttons.
Navigation through the menus and setting of values is done via the rotary knob.
On every heatcon! EC can be connected to a heatcon! MMI can be connected to each heatcon!
The assignment is made directly to the desired heatcon! EC.

2.1 Basic display

1	Energy generator temperature	4	Outside Temperature
2	Date	5	Time
3	Hot water temperature		

After switching on the power supply, the display of the *heatcon! MMI* shows the basic display.
The following temperatures are displayed at the factory:

- Energy generator temperature
- Hot water temperature

- Outside temperature

The temperatures shown in the basic display can be adjusted, see chapter "Configuring the basic display", page 11.

2.2 Menu navigation

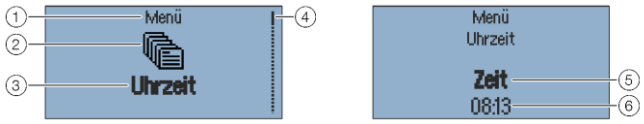
Operation is via the rotary knob and menu buttons on the *heatcon! MMI*.

Rotary knob

The rotary knob is used to navigate through the menus and change parameters and values.

Action		Description
Long press (>3s)		Call up the main menu.
Rotation		Navigation through the menus. Setting parameters and values.
Brief press (1x)		Selecting menus and parameters. Confirmation of parameter inputs.

Example Time menu:



1	Menu level	4	Scrollbar
2	Menu symbol	5	Parameter
3	Submenu	6	Current value

Selecting and changing of menus and parameters

If the scroll bar is displayed in the menu, there are further selection options in the menu. These are navigated through by turning the rotary button.

If menus/parameters are **highlighted in bold**, they can be selected by pressing the rotary button.

To change parameters, select the parameters **highlighted in bold** by pressing the rotary button to edit them.

Now the value of the parameter is **highlighted in bold** and can be changed by turning the rotary button.

Press the rotary knob to save the setting.

Speed-dial buttons

Functions are activated/deactivated via the quick selection keys. Certain menus can be called up directly in order to change values quickly.

Button	Description
	**Quick press:** Start emission measurement. **Long press (about 5 seconds):** Energy generators manual mode activation.
	Calls the menu "Scenes and operating modes”.
	Calls the menu "*Programming*".
	Calls the menu "*Information*".
	Calls the menu "Comfort and Economy Temperature”.
	Calls the menu "Set-back Temperature".
	Calls the menu "*Hot Water*".

Advanced key function:

Function of the Info key

Within menus, the Info key has a special function. Pressing the info key navigates backwards through the menu levels.

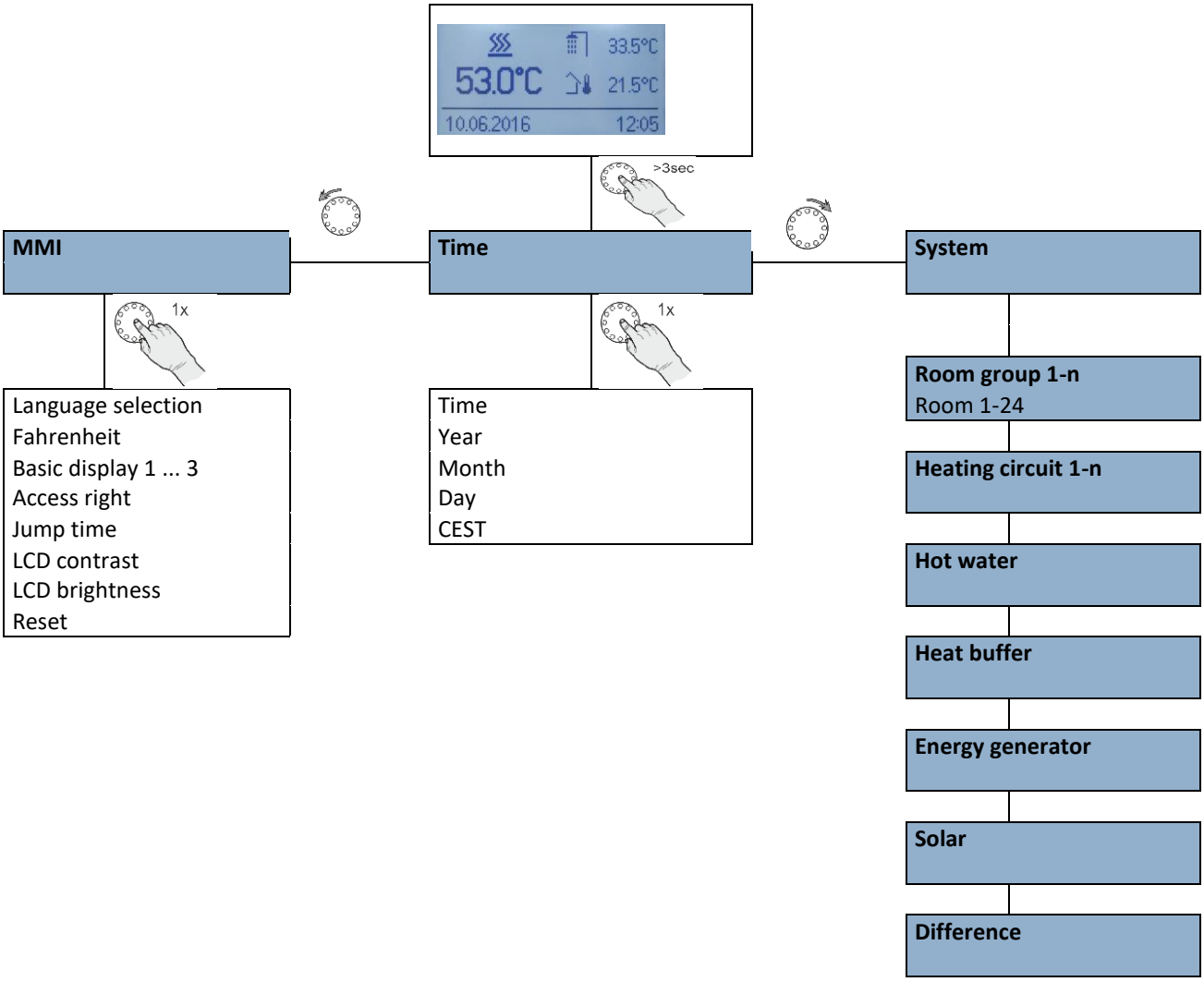
Function of the "Operating modes and scenes" button

Within menus, the operating modes and scenes key has a special function. Pressing the operating modes and scenes key takes you back to the basic view.

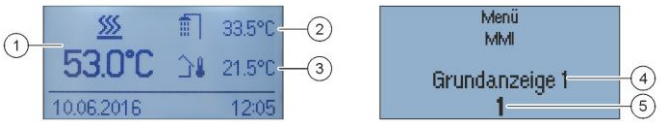
2.3 Menu overview

NOTE

The scope of the displayed menus and parameters depends on the system configuration and may differ from the display.



2.4 Configure basic display



1	Basic Display Position 1	4	Selected position of the basic display
2	Basic Display Position 2	5	Temperature selection 1...15
3	Basic Display Position 3		

The temperatures shown in the basic display can be selected in the "MMI" menu. The basic display has three display positions that can be assigned 15 different temperatures.

Examples can be found in the following table:

Selection	Symbol	Description
OFF	-	No display
1		Energy generator temperature
2		Hot water temperature
3		Outside temperature
4		Flow temperature heating circuit 1
5		Flow temperature heating circuit 2
6		Flow temperature heating circuit 3 (only modulating pump with FS)
7		Heating buffer temperature
8		Cooling buffer temperature
9, 10, 11		Flow temperature differential controller 1...3
12		Common flow temperature
13		Return temperature
14		Thermostat switching state
15	-	Not used
16		Energy generator 2 - temperature

2.5 Speed button functions

2.5.1 Emission measurement

⚠ CAUTION

Risk of scalding!

Risk of scalding during activated emission measurement by heating of the hot water above 60°C.

- Only qualified personnel may activate the "*Emission Measurement*" function.
- Before activating the "*Emission Measurement*" function, inform the users of the hot water system of the risk of scalding.
- When using hot water taps, mix in sufficient cold water.

When emission measurement is activated, the energy generator regulates for the duration of 20 minutes according to the maximum temperature limit set for the energy generator. The remaining time is continuously displayed.

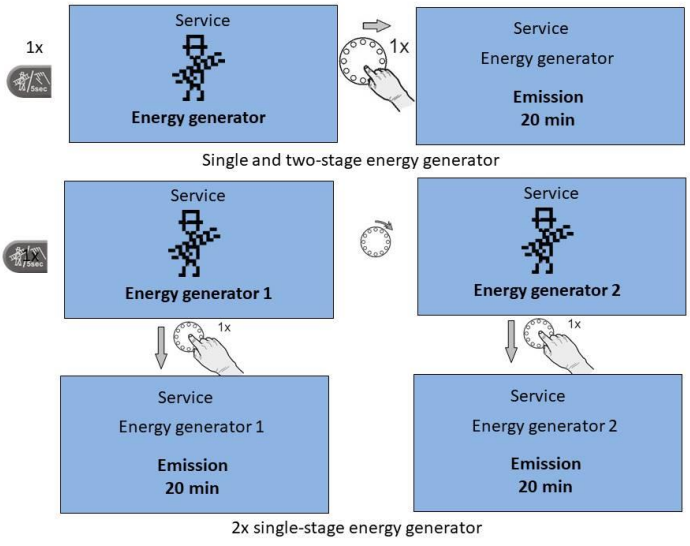
With 2x single-stage GEN, the emission measurement can be activated individually for each stage.

With 1x two-stage GEN, both stages are in operation (measurement with nominal output).

All heating circuits and also the hot water preparation regulate their setpoint to the respective maximum temperature.

Activate:

To activate the emission measurement, briefly press the emission measurement/Manual mode button.



Deactivate:

To deactivate the emission measurement, press the emission measurement/Manual mode button again.

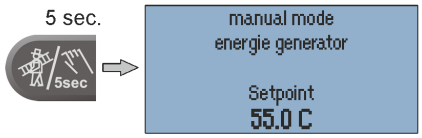
2.5.2 Manual mode

If manual mode is activated, the required heat generator temperature is set manually with the rotary button according to the relevant heat demand (does not have any effect if operated as a heating circuit expansion).

All the pumps are active, while the available mixing valves are de-energized and can be actuated by hand if required for the heat demand.

Activate:

1. To activate manual mode, press the “Emission measurement/manual mode" button for 5 seconds and then release.
2. Set the desired temperature of the energy generator using the rotary wheel. The setpoint is adjustable between the minimum and maximum temperature of the energy generator.
3. If necessary, manually adjust the mixers present in the heating circuits.



With two single-stage energy generators, Manual mode can be activated individually for each stage. A corresponding selection is displayed after calling up manual mode.

Deactivate:

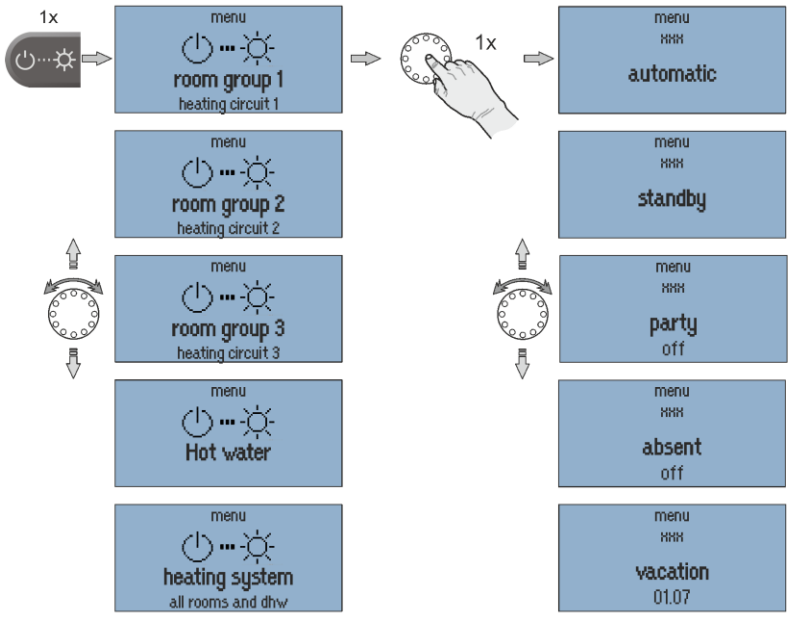
To deactivate manual mode measurement, briefly press the Emission measurement/manual mode button.

NOTE

- The heat generator maximum temperature limit takes priority over the heat generator switching differential and deactivates the heat generator if it is exceeded.
- The switching differential corresponds to the set switching differential for automatic control and is symmetrical to the setpoint temperature.
- With controllers that are operated purely as an expansion of the heating circuits, setting the temperature has no effect.
- The last value appears as a suggested value after the controller has adjusted to the heat generator temperature.

2.5.3 Operating modes and scenes

In the "*Operating mode / Scenes*" menu, the operating mode can be set for the individual room groups (heating circuits), the hot water preparation or for the entire system.



Operation mode	Description
Automatic	Automatic mode for the selected heating circuit.
Standby	Operating mode “Standby” sets the room setpoint in the allocated rooms to the set frost protection temperature. In contrast to the vacation scene, the Standby function has no time limit. If the Standby function is activated for all the rooms/room groups, hot water heating is also switched off subject to frost protection.
Party	"Party" operating mode enables the overriding of the set cycle times for the rooms concerned. As long as "Party" operating mode is active, the corresponding comfort temperature applies for the rooms concerned. The operating mode is deactivated after the set runtime elapses. Setting range: Off ... + 12 h in steps of 0.5 h
Absent	"Absent" operating mode enables the overriding of the set cycle times for the rooms concerned. As long as the "Absent" operating mode is active, the corresponding set-back temperature applies for the rooms concerned. The scene is deactivated after the set runtime elapses. Setting range: Off ... + 12 h in steps of 0.5 h
Vacation	The "Vacation" operating mode is used to set the vacation duration in days. To do so, the vacation duration is entered from the current day in the format DD MM YY (day, month, year) using the rotary wheel. Activation of the vacation function ensures that the temperature does not fall below the minimum temperature (frost protection) of the rooms. Hot water heating is deactivated for the duration of the operating mode. However a set Legionella protection scheme remains active. Setting range: Day/Month/Year adjustable.
Magic wand (Only by operation via heatapp! App)	In “Magic Wand” operating mode the desired temperature has been set via the rotary wheel in the heatapp! App. The change to the desired temperature is only valid until the next programmed time change, at least for 3 hours.

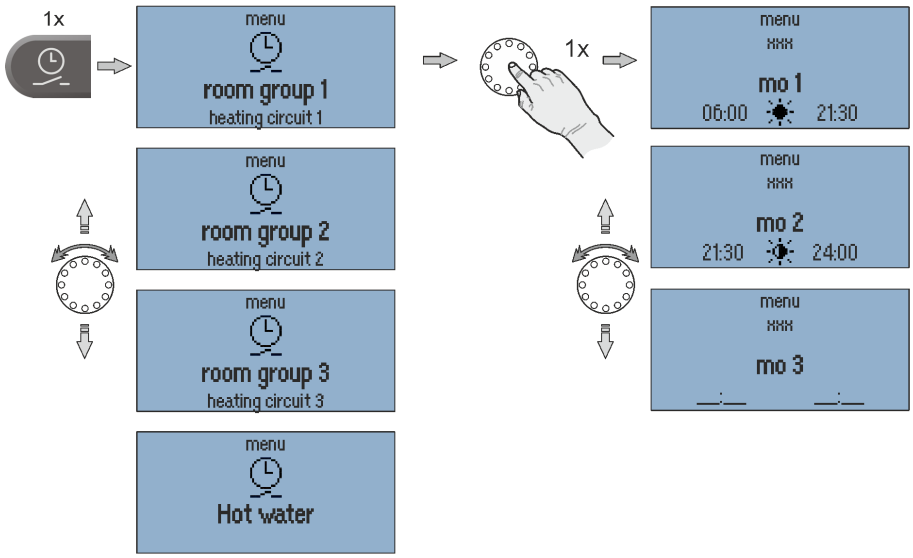
NOTE

Summer operation:

For summer operation (hot water only), the room groups (heating circuits) used must be set to the "Standby" operating mode, while the hot water circuit is set to "Automatic".

If the assignment of the demand was set to room in the Hot water - basic setting menu, the hot water demand is linked to the room groups. This means that if **all** room groups are in shutdown (standby or holiday), the hot water circuit also switches off in a frost-protected manner.

2.5.4 TImerprograms



In the "*Programming*" menu, individual switching cycles can be programmed for each room group (heating circuit) and the hot water.

For programming the switching times a maximum of three switching cycles, each with a switch-on and switch-off time, are available for each weekday. A choice can be made between comfort ☀ and economy temperatures ◑.

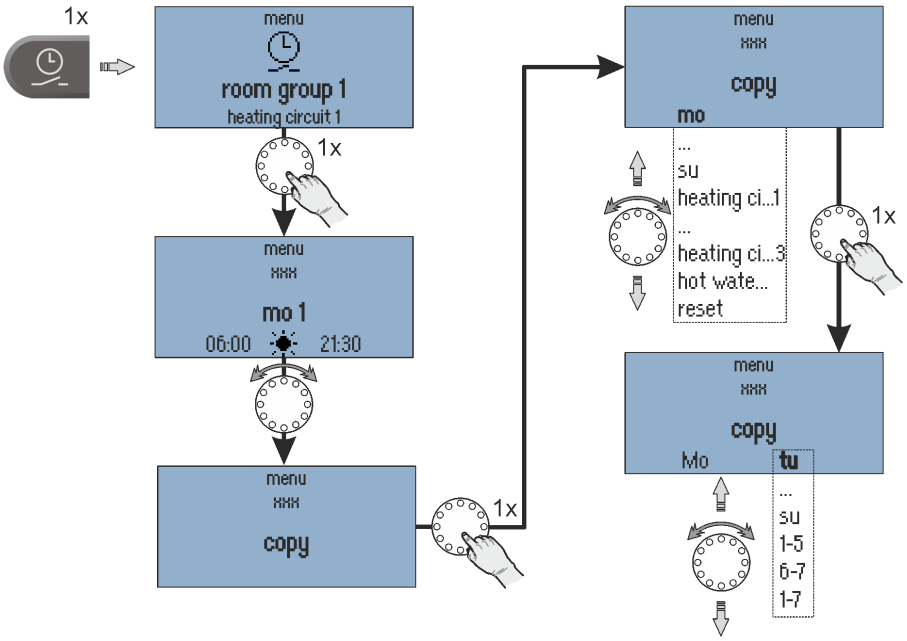
Setting the switching time:

1. Select the desired room group/hot water.
2. Program the switching times for the day in question.
3. If necessary, select comfort ☀ and economy temperature ◑.

NOTE

The default factory program is overwritten as individual switching times are programmed. The individual programming can be recorded in the tables in the appendix or backed up by creating a setup log file.

Copy switching times:



The switching cycles of a particular day or of heating circuit 1 ... n / hot water can be transferred to other days.

1. Select “Copy” submenu.
2. Select the desired source to copy.
3. Select the desired target day.

The source switching cycles are transferred to the desired target day.

Source/target	Description
Mo ... Su	Day Monday .... Sunday
Heat cir... 1...n	Switching cycles of heating circuit 1 ... n as source
Hot water...	Switching cycles, hot water as source
1-5	Monday to Friday as target
6-7	Saturday and Sunday as target
1-7	Monday to Sunday as target
Reset	Reset as the source resets the corresponding target to the factory default program.

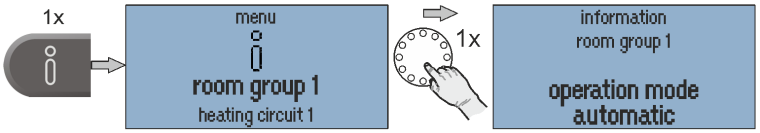
Vacation:

In addition to activating a holiday from the current time, it is possible to enter a planned holiday with start and end in the menu timerprograms.

2.5.5 Information level

In the "*Information*" menu all available temperatures and system states can be displayed for each room group and each heating circuit.

With optional connection to the *heatapp!* single room control, the room temperatures of the individual rooms can also be displayed.

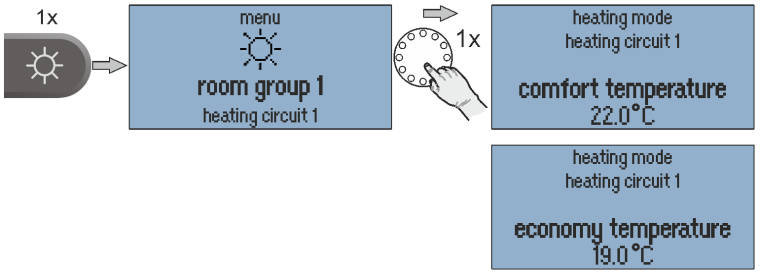


NOTE

The "*Information*" menu is only used to display values. It cannot be used change values and parameters

2.5.6 Comfort and economy temperature

The comfort and economy temperature are set for each room group and each heating circuit in the "*Comfort/Economy Temperature*" menu.



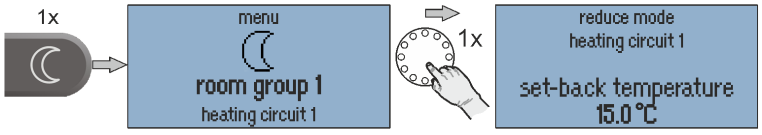
Setting the comfort/economy temperature:

1. Call menu "*Day Temperatures*".
2. Select the desired room group or system.
3. Set the desired comfort and economy temperature.

Factory preset		**Setting range**
Comfort temperature:	21 °C	Economy temperature ... 28 °C
Economy temperature:	20 °C	Set-back temperature ... Comfort temperature

2.5.7 Setback temperature

The set-back temperature is set for each room group and each heating circuit in the "*Set-back temperature*" menu.



Set the setback temperature:

1. Call menu "*Set-back temperature*".
2. Select the desired room group or system.
3. Set the desired set-back temperature.

Factory preset		Setting range
Set-back temperature:	18 °C	Frost protection temperature ... Economy temperature

NOTE

Room group 1-n/Room 1-24: The set temperature is valid for the respective heating circuit or room.

System: The set temperature is valid for all heating circuits and rooms together.

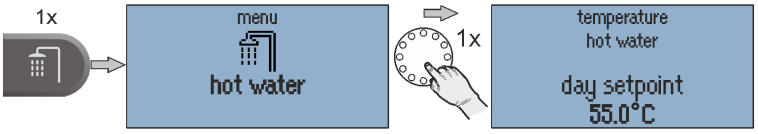
The *comfort, economy and set-back temperatures* for all rooms or room groups as well as the hot water temperature (system) can only be set within the pre-set temperature limits:

- The comfort temperature not less than the economy temperature.
- The economy temperature not above the comfort temperature and not less than the set-back temperature.
- The set-back temperature not above the economy temperature and not less than the frost protection temperature.

The set temperature is the starting value for the individually adjustable temperature settings during the heating cycles (cycle temperatures) in the "Programming" menu.

2.5.8 Hot water

The hot *water* day temperature is set in the "Hot water" menu.



Set the hot water day temperature:

1. Call menu "*Hot Water*".
2. Set the desired hot water daytime temperature.

Factory preset		Setting range
Hot water daytime temperature:	50 °C	5 °C ... Water heater maximum temperature limit

NOTE

The set hot water daytime temperature is the starting value for the individually adjustable temperature settings applied during the standby cycles in the "Programming" menu.

3 Parameter description

3.1 MMI system menu

The MMI system menus are described below. The factory setting of the parameters is shown in **bold.**

Menu / Parameters	Adjustment range	Description
MMI		
Language selection	**DE**, GB, FR, IT, NL, PL, ES, TR , RU	MMI language selection: **German**, English, French, Spanish, Turkish, Dutch, Italian, Russian
Fahrenheit	**Off**, On	Switching the temperature display to Fahrenheit
Basic display 1	Off, 1...15 (**1**)	Selection of the temperature values shown in the basic display. See page 5.
Basic display 2	Off, 1...15 (**2**)	
Basic display 3	Off, 1...15 (**3**)	
Access right	0001 ... 9999	Code entry for selecting the access right. **0000 (BE→** user)
Timeout	Off, 0.5 ... **2.0** ... 10.0 min.	Time setting after which the MMI jumps back to the basic display
LCD contrast	-10 ... **0** ... 10	Contrast setting for the LCD display on the *heatcon! MMI*
LCD brightness	0 ... **5** ... 10	Setting the brightness of the backlight for the LCD display on the *heatcon! MMI*
Reset	**Off**, Set	Resetting the MMI to factory settings.

Menu / Parameters	Adjustment range	Description
Time		
Time	00:00 ... 23:59	Setting the system time
Year	2013 ... 2099	
Month	1 ... 12	
Day	1 ... 31	
CEST	Off, **On**	Changeover to summertime

3.2 Menu - System

Menu / Parameters	Adjustment range	Description
... / **System**		
Cooling mode	Off, **On**	(Only for cooling function) Activates or deactivates the cooling function for the system.
Local operation	**On**, Off	(Only for single room control and the use of heatapp! drive) Activation of the local software setting on the *heatapp! drive*. The setting is valid for all *heatapp! drives* registered on the *heatcon!* system. In room settings you can deactivate operation on the *heatapp! drive* for individual rooms.
Battery State message	Off, 5 ... **10** ... 50 %	(Only with individual room control and the use of heatapp! drive or heatapp! sense) Setting the switching threshold for the battery State message.
Reset	**Off**, Run	Resetting the *heatcon!* parameters to factory settings according to access authorisation.

3.3 Menu - Hot water

Menu / Parameters	Description	
... / Hot water / **Information**		
Operating mode	Display of the current operating mode	
	Vacation until ….	Active holiday programme
	Reloading	Manual hot water recharge active (party function)
	WW charge	Hot water recharge active via menu setting
	Automatic	Operation according to switching time programme active
	Standby	Frost protected switched off
State	Display of the current state	
	Emission	Emission measurement programme active
	Manual mode	System in manual mode
	Forced draining	Active due to a Forced draining function
	Set point	Set point is reached
	Heating	Hot water charging with setpoint active
	Blocking	Hot water charging is blocked
	Setpoint reduction	Hot water setpoint reduced by differential control
	Run after time	Run-on time active
	Lead time	Pump lead time active
	stop	Discharge protection or boiler start-up protection active or advance operation of a second hot water tank
Setpoint	Display of the current setpoint for hot water preparation	
Current temperature (1)	Display of the current Current temperature of the hot water tank	
Current temperature 2	Display of the current Current temperature of the second hot water tank during stratified charging	
Pump	Display of the current State of the storage tank charging pump (Off/On)	
Request	Display of the current setpoint temperature that is passed on to supply the hot water preparation (e.g. buffer setpoint or energy generator setpoint taking into account excess values).	
Energy generator	Display of the Current temperature GEN when the energy generator is supplied.	
Heating buffer	Display of the Current temperature GEN with heating buffer supply.	
Heating usage	Display of the current State for the heating usage (only with the heating usage optional function)	
Setpoint	Display of the current setpoint, which is used for controlling the heating usage (only with the heating usage optional function)	
Is temperature	Display of the Current temperature for the heating usage (only with the heating usage optional function)	
DHW circulation pump	Display of the current State of the DHW circulation pump (only with the DHW circulation pump optional function)	
Setpoint	Setpoint from which the DHW circulation pump is switched on (only with the DHW circulation pump optional function)	
Current temperature (1)	Display of the current Current temperature of the sensor for the circulation pump (only with optional function circulation pump)	
Current temperature 2	Display of the current Current temperature of the second sensor for the circulation pump (only with optional function circulation pump)	
Thermal power	Display of the current heat output in kW (only with activated heat balancing)	
Heat quantity	Display of the heat quantity meter reading for the hot water tank in kWh (only with activated heat balancing)	

Menu / Parameters	Adjustment range	Description
... / Hot water / **Switching times**		
Vacation	DD.MM ... DD:MM	Setting the holiday period for hot water preparation.
Mo 1…3 Tu 1…3 … Su 1…3	00:00 ... 24:00	Setting the switching times for hot water preparation.

Menu / Parameters	Adjustment range	Description
... / Hot water / **Basic setting**		
Recharging	**Off**, 5 ... 240 min	Selection of the recharging time for hot water heating. Charging of hot water storage is activated for the set time.

Menu / Parameters	Adjustment range	Description
... / Hot water / **Heating mode**		
Day setpoint	Night setpointpoint(+0.5K) ...50.0°C... Maximum temperature	Setting the hot water setpoint temperature for heating mode.
Night setpoint	5,5 ... 40,0°C ... Day setpoint (-0.5K)	Setting the hot water setpoint temperature for setback mode.
Legionella Protection Day	Off, Mo ... Sun, All	Selection of the day for legionella protection.
Legionella protection Time	0:00 ... 2:00 ... 23:50	Setting the time for legionella protection.

Menu / Parameters	Adjustment range	Description
... / Hot water / **Reset**		
Reset	Off, set	Resetting the parameters in the "Hot water" menu to factory settings according to the access authorisation

3.4 Menu - Heating circuit 1 ... n

Menu / Parameters	Description	
... / heating circuit 1 ... n / **information**		
State	Display of the current state	
	Anti-lock system	Anti-lock system Anti-lock system for the actuators
	Heating	Control to comfort- or economy temperature
	Priority	Heating circuit is switched off by DHW priority
	Heat limit	Switch-off via function heating limit
	Frost protection	Heating circuit switched off frost-protected
	Summer	Heating circuit out of operation due to summer switch-off
	Off	Heating circuit not active (e.g. in setback phases automatic mode)
Setpoint	Display of the current setpoint of the heating circuit.	
Current temperature	Display of the current heating circuit flow temperature (only mixed heating circuit).	
Pump	State of the heating circuit pump On/Off	
Mixing valve	Calculated position of the actuator	
Request	Display of the current setpoint temperature that is passed on for supply (e.g. heating circuit setpoint taking into account excess values).	
Energy generator	Display of the Current temperature GEN when the energy generator is supplied.	
Heating buffer	Display of the Current temperature of the heating buffer when the heating buffer is supplied.	

3.5 Menu - Room group 1 ... n (Room 1 ... n)

Menu / Parameters	Description	
... / room group 1 ... n (room 1... 24) / **Information**		
Operating mode	Display of the current operating mode.	
	Absent	Operating mode / scene "Absent" active
	Automatic	Operation according to switching time programme active
	Emission	Emission measurement active
	Screed	Programme screed drying active
	Manual mode	Manual mode active
	Magic wand running time	Manual temperature specification via magic wand function is active
	Recharging	Room active for an activated hot water recharging (only with single room control)
	Party	Operating mode / scene "Party" active
	Standby	Operating mode / scene "Standby" active, room / room group frost-protected switched off
	Vacation	Operating mode / scene "Vacation" active, room / room group frost-protected switched off
	Switch contact	Activated switching contact. Operating mode according to assigned function
State	Display of the current state	
	Anti-lock protection	Anti-lock protection active for the actuators in the room (only with single room control)
	Heating	Regulation to comfort or economy temperature
	Heating limit	Switching off via heating limits function
	Room blocking	Room not active due to exceeding the set limit temperature (only in connection with a room sensor)
	Frost protection	Frost-protected room switched off
	Summer	Room out of operation due to summer economy control
	Off	Room not active (e.g. in automatic mode setback phases)
Setpoint	Display of the current setpoint for the room temperature.	

Menu / Parameters	Description
... / room group 1 ... n (room 1... 24) / **Information**	
Current temperature	Display of the current Current temperature of the room (only if room temperature detection is active).
Outside temperature	Display of the current Outside temperature used for regulation in the room.
State valve 1 ... 4	(Only for individual room control) Display of the current position of a valve (drive or floor).
Request	Display of the current setpoint temperature that is passed on to supply the heating circuit (e.g. heating circuit setpoint taking into account excess values).
Heating circuit xx	Display of the Current temperature of the requested heating circuit.

Menu / Parameters	Adjustment range	Description
... / room group 1 ... n / **switching times** (room 1... 24 / **switching times)**		
Vacation	DD:MM ... DD MM	Setting the holiday period for the room / room group.
Mo 1…3 Di 1…3 … So 1…3	00:00 ... 24:00 06:00 ... 22:00	Setting the switching times for the room / room group.

Menu / Parameters	Adjustment range	Description
... / room group 1 ... n / **basic setting (**room 1... 24 / **basic setting)**		
Name	Alphanumeric, max. 15 characters, no special characters	Enter the name for the room / room group.

Menu / Parameters	Adjustment range	Description
... / room group 1 ... n / **room setting (**room 1... 24 / **room setting)**		
Comfort temperature temperature	Economy temperature ... **21,0** ... 28,0 °C	Setting the room setpoint temperature for heating mode.
Economy temperature	Setback temperature ... **20,0 °C** ... Comfort temperature	Setting of the reduced room setpoint temperature for heating mode.
Set-back temperature	Frost protection temperature ... **18,0 °C** ... Economy temperature	Setting the room setpoint temperature for setback mode.
Anti-freeze temperature	4,0 ... **16,0 °C** ... Setback temperature	Setting the room setpoint temperature for frost protection mode.
Boost offset	0,5 ... **2,0** ... 5,0 K	Setting the increase of the room setpoint temperature when the boost scene is activated in the *heatapp! app.*
Local operation	**Off,** On	(Only for heatapp! single room control using a heatapp! drive) Activate the local setting on the *heatapp! drive*, only for this room.
Windows shutdown	**Off,** 5 ... 240 min, On	(Only with heatapp! single room control using a window contact) 5 ... 240 min: Blocking of the heating function (control to frost protection temperature) for the set duration. The rotary wheel is blocked, scenes only take effect after the window is closed. On: Blocking of the heating function for the duration of the window opening. Turning wheel is blocked, scenes only take effect after the window is closed.

Menu / Parameters	Adjustment range	Description
... / room group 1 ... n / **heating mode (**room 1... 24 / **heating mode)**		
Lowering mode	Standby, heating	Selection of the operating mode for setback operation. Standby - frost-protected switch-off ECO Heating - set setback temperature AbS
Heating curve	Off, 0.5 ... **1,00** ... 3,5	Setting the slope of the heating characteristic for Outside temperature control.

Menu / Parameters	Adjustment range	Description
... / room group 1 ... n / **cooling mode (**room 1... 24 / **cooling mode)**		
Enable cooling mode	**Off,** On	If UKP is parameterised and cooling supply is possible through the heating circuit, the cooling enable for the room or room group can be set here.

Menu / Parameters	Adjustment range	Description
... / Room 1... 24 / **Reset**		
Room group 1 ... n / **Reset**		
Reset	**Off,** set	Resetting the parameters in the "Room/room group" menu to the factory setting, according to the access authorisation.

3.6 Menu - Energy generator-1 or 2

Menu / Parameters	Description	
... / Energy generator 1 or 2 / **Information**		
State	Display of the current State of the energy generator (GEN)	
	Heating	GEN serves requirement for heating operation
	Hot water	GEN serves requirement for hot water operation
	Emission	Emission measurement GEN active
	STB	Safety temperature limiter (STB) triggered
	Manual mode	Manual mode GEN active
	Frost protection	GEN frost protection active (fixed at 5°C) After activation, heating up to GEN minimum temperature.
	Blocking	GEN blocked by locking contact
	Minimum runtime	GEN active for set minimum running time
	Start protection	GEN Start protection active
	Minimum temperature	GEN has not yet reached the set minimum temperature
	Summer lock	Summer lock active
	Winter lock	Winter lock active
	Off	GEN switched off
Level	Display of the current State of the energy generator (GEN)	
	On	GEN is active
	Off	GEN not active
	xx%	Display of the current output with modulating GEN
	OT lock	Outside temperature lock (summer/winter) for GEN active
Setpoint	Display of the current setpoint for the energy generator.	
	Blocked	GEN blocked by locking contact
Current temperature (1)	Display of the current Current temperature of the power generator.	
Current temperature 2	Display of the current Current temperature of the Energy generatorat the second sensor (optional)	
Exhaust gas sensor	Display of the current exhaust gas temperature.	
Pump	Display of the current State of the pump in the energy generator (e.g. boiler pump).	

Menu / Parameters	Description
... / Energy generator 1 or 2 / **Information**	
Burner starts	Display of the number of burner starts.
Burner runtime	Display of the burner running time.
Thermal power	Display of the current heat output of the energy generator. (Optional)
Heat quantity	Current heat meter reading for the energy generator. (Optional)

Menu / Parameters	Adjustment range	Description
... / Energy generator / **Service**		
Manual mode	**Off,** Minimum temperature ... Maximum temperature	Activate Manual mode for the power generator. The energy generator permanently regulates the temperature value set here during activated Manual mode.

3.7 Menu - Extras

Menu / Parameters	Adjustment range	Description
... / Extras / **Information**		
	Info 1 (Name)	Display of the selected temperature or switching State
	Info 2 (Name)	Display of the selected temperature or switching State
	Info 3 (Name)	Display of the selected temperature or switching State
	Fault message input	State of fault message input (off/on)
	Summer	State of selected output Summer switch-off (Off/On)

Menu / Parameters	Adjustment range	Description
... / Extras / Info 1, Info 2, Info 3		
Name	Alphanumeric, max. 15 characters, no special characters	Enter the name for the info input.

Menu / Parameters	Adjustment range	Description
... / Extras / Fault signal input		
Name	Alphanumeric, max. 15 characters, no special characters	Enter the name for the fault signal input.

3.8 Menu - Feed pump

Menu / Parameters	Description
... / Feed pump / **Information**	
State	Display of the current operating State of the feed pump
Pump	Display of the current State of the feed pump (off/on)
Thermal power	Display of the current heat output of the energy generator. (Optional)
Heat quantity	Current heat quantity reading for the energy generator. (Optional)

3.9 Menu - Heating buffer

Menu / Parameters	Description	
... / Heating Buffer / **Information**		
State	Display of the current state	
	Absorption	Skimming function active
	Start protection	Charging pump is blocked by minimum temperature GEN
	Off	Charge switched off
	Blocking	Blocking active
	On	Charge switched on
	Frost protection	Frost protection function active
	Manual mode	Manual mode active
	Maximum limitation	Overtemperature in the heating buffer
	Setpoint reduction	Setpoint reduction through differential control
	Forced draining	Forced draining active
Setpoint	Display of the current setpoint for the heating buffer.	
Current temperature (1)	Display of the current Current temperature PF1 (buffer above)	
Current temperature 2	Display of current Current temperature PF2 (buffer below) (optional)	
Pump	Display of the current State of the buffer charging pump or the buffer switching valve.	
Request contact	Display of the State of the contact for external request buffer tank (optional).	
Valve hydraulic buffer	Display of the State of the valve hydraulic buffer.	
Request	Display of the current setpoint temperature that is passed on to supply the heating buffer.	
Current temperature	Display of the Current temperature of the power generator.	

3.10 Menu - Solar

Menu / Parameters	Description
... / Solar / **Information**	
State	Display of the current state
	Off
	On
	Time lock
	Anti-lock system
	Manual mode
	Frost protection (for recooling)
	Minimum runtime
	Forced draining
Valve 1	Display of the State for valve 1 for east-west switching (option).
VF1	Display of the current Current temperature VF1 (solar field 1).
Valve 2	Display of the State for valve 2 for east-west switching (option).
Current temperature VF2	Display of the current Current temperature VF2 (solar field 2).
Current temperature RF	Display of the current Current temperature of the return sensor (option).
Current temperature PF	Display of the current Current temperature of the buffer tank.
Pump	Display of the current State of the solar pump.
Valve SLV	Display of the State of the solar charging valve (SLV).
Current temperature SLVF	Display of the current Current temperature of the solar charging valve sensor (SLVF).
Starts	Display of the pump starts of the solar charging pump.
Duration	Display of the running time of the solar charging pump.
Thermal power	Display of the current solar heat output in KW
Heat quantity	Current counter reading of the heat meter for solar in KWh.

Menu / Parameters	Adjustment range	Description
... / Solar / **Pump**		
Reset counter	**Off**, Run	Reset the counters (pump starts, pump runtime).

3.11 Menu - Solid

Menu / Parameters	Description
... / Solid / **Information**	
State	Display of the current state
	Off
	On
	Anti-lock system
	Forced draining
	Manual mode
	Run after time
Current temperature VF1	Display of the current Current temperature of the solid fuel boiler sensor
Current temperature RF	Display of the current Current temperature of the return sensor (option).
Current temperature PF	Display of the current Current temperature of the buffer tank.
Pump	Display of the current State of the solids charging pump.
Starts	Display of the pump starts of the solids loading pump.
Duration	Display of the running time of the solids charging pump.
Thermal power	Display of the current heat output of solid matter in KW
Heat quantity	Current meter reading of the heat quantity meter for solid matter in KWh.

Menu / Parameters	Adjustment range	Description
... / Solid / **Pump**		
Reset counter	**Off**, set	Reset the counters (pump starts, pump runtime).

3.12 Menu - Difference

Menu / Parameters	Description
... / Difference / **Information**	
State	Display of the current state
	Off
	On
	Time lock
	Anti-lock system
	Manual mode
	Minimum runtime
	Forced draining
	Run after time
Current temperature VF1	Display of the current Current temperature of the differential flow sensor (heat supplier)
Current temperature RF	Display of the current Current temperature of the return sensor (option).
Current temperature PF	Display of the current Current temperature of the differential storage tank (heat storage tank)
Pump	Display of the current State of the differential charging pump.
Starts	Display of the pump starts of the differential charging pump.
Duration	Display of the running time of the differential charging pump.
Thermal power	Display of the current heat output in KW
Heat quantity	Current heat meter reading in KWh.

Menu / Parameters	Adjustment range	Description
... / Difference / **Pump**		
Reset counter	**Off**, set	Reset the counters (pump starts, pump runtime).

3.13 Menu - Thermostat

Menu / Parameters	Adjustment range	Description
... / Thermostat / **Information**		
State	Display of the current switching State of the selected output (off/on)	
Setpoint	Set thermostat temperature	
Current temperature	Current temperature thermostat	

4 heatcon! RC 130

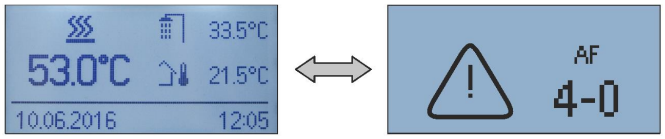
The **RC 130** serves as a living room remote control with room temperature detection for the ***heatcon!* system**.
The temporary desired temperature can be set using the **+** or **-** buttons.
The change of the desired temperature applies once until the switching time change, but at least for 3 hours.

The **RC 130 is integrated into** the **heatcon! system** by means of addressing and can be assigned to a **heatcon! EC** and a room group (1 of max. 5) as reference room control or, in the case of single room control, to a room (1 of max. 24).

5 heatcon! Error codes

A pending error is shown alternately with the basic display in the MMI display.

Example: **AF 4-0** = Meaning→ Outdoor sensor **AF** / Input EF **4** / Interruption **0**



Error display/ Error message				
Error-Code	**Error number**	**Error location**		**Error type**
W(n)-	FA-specific	Machine Warning	Machine address 0 ... n	Warning message machine
B(n)-	FA-specific	Machine Blocking	Machine address 0 ... n	Blocking message machine
E(n)-	FA-specific	Machine Lock	Machine address 0 ... n	Locking message automatic
4 ... 15	0	Sensor	Input E4 ... E15	Interruption
	1			Short circuit
21 ... 24	0	Sensor	EM-1 Input E1 ... E4 e.g.: (EM-1/E1=error code 21)	Interruption
	1			Short circuit
31 ... 34	0	Sensor	EM-2 Input E1 ... E4 e.g.: (EM2/E1=error code 31)	Interruption
	1			Short circuit
33	5	Energy generator	Exhaust gas monitoring	Exhaust blocking
	6			Exhaust interlock
49	4	Energy generator2		Setpoint not reached
50	3	Energy generator		Starter identification: GEN does not switch on
50	4	Energy generator1		Setpoint not reached
51	4	Hot water		Setpoint not reached
53 ... 76	5	Room/-group	Room 1 ... 24 e.g. (Room 1 = error code 53) (Room 2 = error code 54) etc.	Room temperature not reached
	20			Heating supply not available
	21			Cooling supply not available
70	6	Bus	Machine	Malfunction connection to the vending machine
71	6	Bus	EM-1	Fault Connection to EM-1
72	6	Bus	EM-2	Fault Connection to EM-2
81 ... 85	4	Heating circuit	Heating circuit 1 ... 5 e.g.: (heating circuit 1=error code 81)	Setpoint not reached
90	0	Fault message	Fault message input	System message (optional)

6 Switching time table for entry

Room / room group	Day	Timerprogram 1	Timerprogram 2	Timerprogram 3
	Mo			
	Tue			
	Wed			
	Thu			
	Fri			
	Sat			
	Sun			
	Mo			
	Tue			
	Wed			
	Thu			
	Fri			
	Sat			
	Sun			
	Mo			
	Tue			
	Wed			
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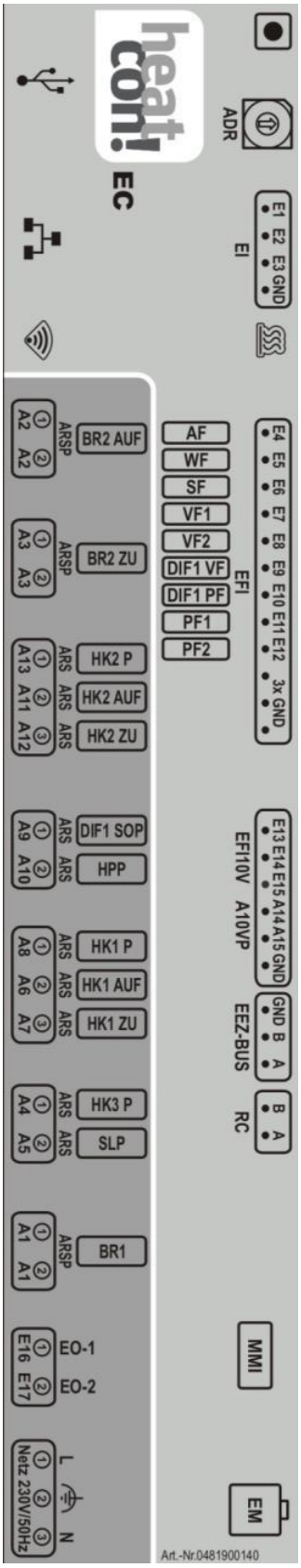
	Sun			
	Mo			
	Tue			
	Wed			
	Thu			
	Fri			
	Sat			
	Sun			

7 heatcon! EC connections for printing and labelling

EI	Input pulse
EFI	Input sensor pulse
EFI10V	Input sensor pulse 10V
EO	Input optocoupler (heat meter)
ARS	Output relay normally open
ARSP	Output relay normally open potential-free
A10VP	Output 10V PWM (pulse width modulation)
EEZ Bus	Energy generator bus
RC	Room control
MMI	Machine machine interface
EM	Extension module

Contact rating relay:

A1	230 V / 6A



Button

Address switch

EI		E1	
		E2	
		E3	
		GND	

EFI	AF	E4	
	WF	E5	
	SF	E6	
	VF1	E7	
	VF2	E8	
	DIF1VF	E9	
	DIF2PF	E10	
	PF1	E11	
	PF2	E12	
		GND	
		GND	
		GND	

EFI 10V		E13	
		E14	
		E15	
A10 VP		A14	
		A15	
		GND	

EEZ Bus		GND	
		B	
		A	

RC		B	
		A	

AR SP	BR2 AT	A2①	
		A2②	

AR SP	BR2 TO	A3①	
		A3②	

ARS	HK2P	A13①	
	HK2AUF	A11②	
	HK2ZU	A12③	

ARS	DIF1SOP	A9①	
	HPP	A10②	

ARS	HK1P	A8①	
	HK1AUF	A6②	
	HK1ZU	A7③	

ARS	HK3P	A4①	
	SLP	A5②	

AR SP	BR1	A1①	
		A1②	

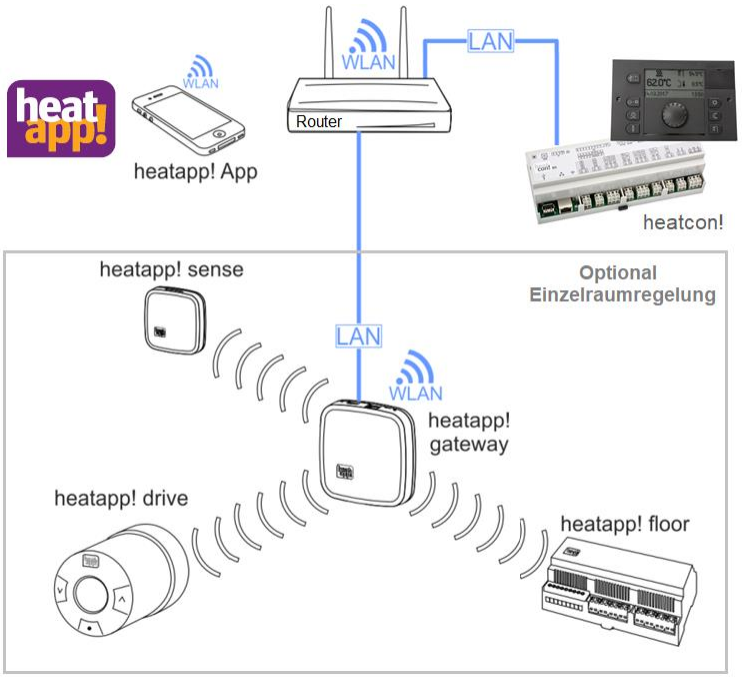
EO	EO-1	E16①	
	EO-2	E17②	

L	Net 230V/ 50Hz	①	
⏚		②	
N		③	

MMI display

EM extension module

8 heatcon / heatapp system



If you would like to operate or monitor your heating system via app, you can do so with the **heatapp! app.**

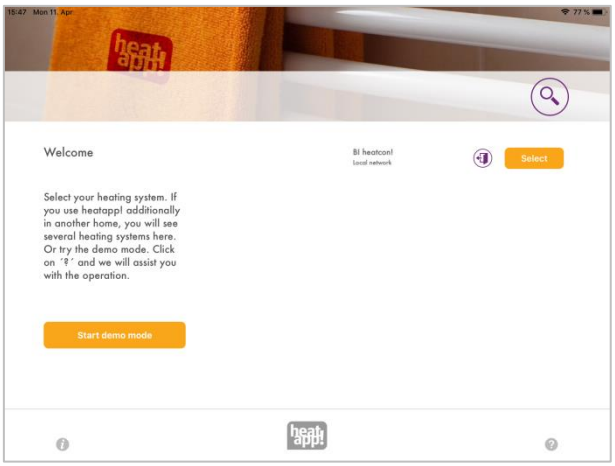
heatapp! is a system for heating control via app - from anywhere and at any time.
heatapp! allows you to set individual switching times as a repeating programme as well as three temperature levels - comfort temperature, economy temperature and setback temperature - for each room/room group. A temporary adjustment of the temperature can be activated via the rotary wheel and the scenes Vacation, Go, Party, Shower, Boost and Standby.

Optional: In combination with the **heatapp! gateway** and the radio components, **heatapp!** becomes a highly efficient individual room control system that determines the heat requirement of each room and controls the heat distribution. The three user roles to be selected, "User", "Administrator" and "Expert", have different operating and viewing rights and thus enable each user to be individually assigned to the area to be controlled.

8.1 Operation via app

8.1.1 Starting the app and logging on to the system

Start screen of the app



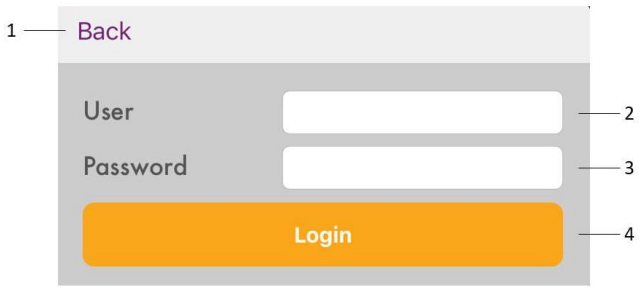
NOTE

For the first login to your heatcon! system, it is necessary that your operating device (tablet or smartphone) is in the same network as your heatcon! system.

The heating system is listed with its name registered with the facility.

Directly under the name, you can see whether the heating system is in the same network "local network" or whether the connection to the heating system is established via "Internet" via **heatapp! connect.**

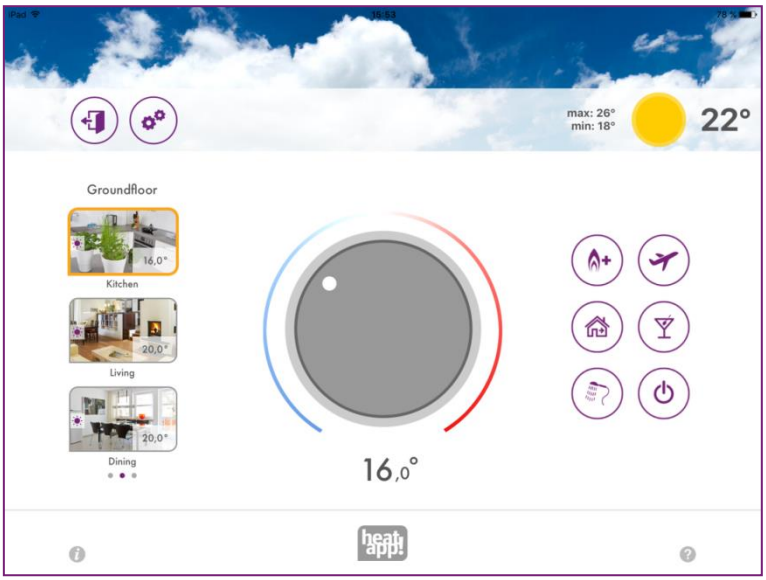
1. Tap on the desired heating system.
2. The "*Log on*" dialogue box is displayed.
   Enter your user name (2) and password (3).
3. Confirm the entry by tapping the button (4) "Log in". Use the button (1) "Back" to return to the start menu without logging in.
4. After successful login, the *"Home screen" is* displayed.



After logging in, the app saves the current user and password. As long as the current user is logged in, there is no need to re-enter the user name and password.

You can log out of the corresponding system via the button .

8.2 The "Home screen



The "Home screen" shows an overview of the rooms/room groups created, the direct option to adjust the temperature via the rotary wheel and to activate and deactivate scenes.

In the local network, the **heatapp! app** checks whether the system software is up to date after selecting the heatapp! system. If there is an update, you will receive a message "**There is an update available". available"**.

The "now" button takes you to the system update page of **heatapp!** gateway or **heatcon!**

With the button "later" you will be informed again in 5 days about the possible update.

Leaving the "Home screen

Tap the symbol to return to the start screen.

Calling up the settings

Tap the icon to access the settings.

Weatherdisplay

heatapp! displays the weather data of the system location entered in the **heatcon!** menu. The outdoor sensor value connected to the heatcon! is displayed as the outdoor sensor value, and the outdoor sensor value of the OpenTherm device is displayed if OpenTherm is connected. The min/max values for the current day are also displayed. If no outdoor sensor is detected, the Outside temperature value predicted by the weather service for the system location is displayed.

8.3 Symbols in the rooms

Symbol	Operating mode without Energy generatorconnection	Operating mode with energy generator connection
	Automatic mode Comfort temperature. Heating mode is active after the **set switching time.**	Automatic mode Comfort temperature. Heating mode is active after the **set switching time.** **State:** Current temperature =/> Setpoint = No heat demand present
	--	Automatic mode Comfort temperature. Heating mode is active after the **set switching time.** **State:** Current temperature < setpoint temperature = heat demand present

Symbol	Operating mode without Energy generatorconnection	Operating mode with energy generator connection
	Automatic mode economy temperature. Heating mode is active after the **set switching time.**	Automatic mode economy temperature. Heating mode is active after the **set switching time.** **State:** Current temperature =/> Setpoint = No heat demand present
	--	Automatic mode economy temperature. Heating mode is active after the **set switching time.** **State:** Current temperature < setpoint temperature = heat demand present
	Automatic mode lowering. The lowering mode is active after the **set switching time.**	Automatic mode lowering. The lowering mode is active after the **set switching time.** **State:** Current temperature =/> Setpoint = No heat demand present
	--	Automatic mode lowering. The lowering mode is active after the **set switching time.** **State:** Current temperature < setpoint temperature = heat demand present
	Heating or cooling operation takes place at the set desired temperature until the end of the switching time, but at least for 3 hours.	Heating or cooling operation takes place at the set desired temperature until the end of the switching time, but at least for 3 hours. **State:** Current temperature =/> Setpoint = No heat demand present
	--	Heating or cooling operation takes place at the set desired temperature until the end of the switching time, but at least for 3 hours. **State:** Current temperature < setpoint temperature = heat demand present
	Standby function. With the standby function, the selected rooms are switched off in a frost-protected manner. In contrast to the Vacation scene, the standby function has no time limit.	Standby function. With the standby function, the selected rooms are switched off in a frost-protected manner. In contrast to the Vacation scene, the standby function has no time limit. State: Current temperature =/> Setpoint = No heat demand present
	--	Standby function. With the standby function, the selected rooms are switched off in a frost-protected manner. In contrast to the Vacation scene, the standby function has no time limit. State: Current temperature < setpoint temperature = heat demand present
	Window closed. Regulation according to the set desired temperature.	Window closed. Regulation according to the set desired temperature.
	Window open. Control takes place according to the parameter set in the heatapp! base Profi > Room menu.	Window open. Control takes place according to the parameter set in the heatapp! base Profi > Room menu.
	Summer shut-off, shut-off of the demand when the set Outside temperature value is exceeded.	Summer shut-off, shut-off of the demand when the set Outside temperature value is exceeded.

Symbol	Operating mode without Energy generatorconnection	Operating mode with energy generator connection
	Room cooling manually active. The cooling operation takes place according to the set parameter in automatic mode after the set switching time. This is a repeating temperature according to the switching time programme.	Room cooling manually active. The cooling operation takes place according to the set parameter in automatic mode after the set switching time. This is a repeating temperature according to the switching time programme.
	Blocking of the heating request, due to active manual cooling. To operate the heating request, manual cooling must be deactivated under Settings > Room the "Global Cooling" via the symbol . 	Blocking of the heating request, due to active manual cooling. To operate the heating request, manual cooling must be deactivated under Settings > Room the "Global Cooling" via the symbol . 
	Scene Boost active for the room according to preset parameters.	Scene Boost active for the room according to preset parameters. State: Current temperature =/> Setpoint = No heat demand present
	--	Scene Boost active for the room according to preset parameters. State: Current temperature < setpoint temperature = heat demand present
	Scene go active for the space	Scene go active for the space State: Current temperature =/> Setpoint = No heat demand present
	--	Scene go active for the space State: Current temperature < setpoint temperature = heat demand present
	Scene holiday for the room active	Scene holiday for the room active State: Current temperature =/> Setpoint = No heat demand present
	--	Scene holiday for the room active State: Current temperature < setpoint temperature = heat demand present
	Scene Party for the room active	Scene Party for the room active State: Current temperature =/> Setpoint = No heat demand present
	--	Scene Party for the room active State: Current temperature < setpoint temperature = heat demand present
	Scene showers for the room active	Scene showers for the room active State: Current temperature =/> Setpoint = No heat demand present
	--	Scene showers for the room active State: Current temperature < setpoint temperature = heat demand present

8.4 Temperature setting by means of rotary wheel

The temperature for the currently selected room is temporarily set via the rotary wheel by "tapping and turning". This desired temperature is marked in the room picture with the magic wand. It is valid until the end of the switching time, but at least for a time that can be set in professional mode.

The operator can reduce the sensitivity of the rotary wheel by moving the finger outwards from the rotary wheel without putting it down. The sensitivity decreases as the distance from the wheel increases.

The set temperature is displayed under the rotary wheel.

When connecting the **heatapp! base** to the energy generator the deviation of the current room temperature from the set temperature is displayed via the orange halo. If the current room temperature corresponds to the set temperature, the halo also disappears.

The lower limit of the adjustable temperature is determined by the setback temperature specified for the room.

The upper limit of the adjustable temperature is fixed at 28.0 °C.

Note

The temperature set on the rotary wheel overrides the currently active operating mode of the selected room (comfort temperature / economy temperature / setback temperature).

If the operating mode is changed by a set switching time, the temperature set on the rotary knob is also reset to the value specified in the switching times for the comfort, economy or setback temperature.

However, the temperature set on the rotary knob is valid for at least three hours, the reset by the switching time is then carried out correspondingly later.

8.4.1 Use of scenen

Scenes can be used to superimpose the set switching times and temperatures for the selected running time of the scenes.

Scenes are assigned to individual rooms (see also chapter See "Scenen Edit" on page 45).

By tapping the scene symbols, you activate scenes for the assigned rooms. This opens the input dialogue of the selected scene. In this dialogue, the rooms can be assigned and the respective parameters of the scene can be set.

The running time of the scene is set via a slider in hours, days or, in the case of the shower scene, the start of the scene.

All scenes can be stopped at any time by tapping the Stop button again.

Note

Activated scenen are highlighted orange.

Scene "Boost"

The "Boost" scene enables the comfort temperature to be reached quickly in the assigned rooms. When activated, the comfort temperature + a fixed temporary increase should heat the rooms as quickly as possible.

The duration of the function is defined or can be made visible by pressing the symbol again.

The running time of the scene can be set in 30-minute steps up to a maximum of 120 minutes.

Scene "Showers"

Hot water is normally heated according to the set switching times.

If hot water is required outside the set switching times at a certain time, the Shower scene can be activated.

Unlike the other scenes, long taps are not used here to set the running time of the scene, but the start time of the scene in steps of 15 minutes.

The duration of the scene is preset to 1 hour.

If the Shower scene is activated, the hot water tank is heated to the set target temperature from the start time. In addition, the rooms assigned to the scene are heated to the comfort temperature.

Example:

Normally, there is no hot water production after 22:00. However, hot water is needed for showering at 2:00 (e.g. due to a flight).

When setting the start time for the scene, the time that the heating system needs to heat up the hot water tank should be taken into account.

So the start time of the scene is set to 1:30 and the scene is activated.

Hot water preparation thus starts at 1:30 and the assigned rooms are heated to the comfort temperature.

Note

The time required to heat up the hot water tank depends on the respective heating system and must be determined anew for each installation.

- The shower scene is only available when the heat generator is connected via the bus systems Open Therm, **T2B.**

Scene "Party"

The "Party" scene allows the switching times set for the assigned rooms to be superimposed.

As long as the "Party" scene is active, the corresponding comfort temperature applies to the assigned rooms.

The scene is deactivated after the set runtime has elapsed.

The running time of the scene can be set in steps from one hour to a maximum of 12 hours.

Example:

Normally, the system switches to setback mode at 22:00.

But today there is a party that is expected to last until 0:00.

It is now 18:00, so the running time of the scene is now set to 6 hours.

The comfort temperature of the assigned rooms is now set from 18:00 + 6 hours = 0:00.

Scene "Walking"

The "Walk" scene allows the switching times set for the assigned rooms to be superimposed.

As long as the "Walking" scene is active, the setback temperature applies to the assigned rooms.

The scene is deactivated after the set runtime has elapsed.

The running time of the scene can be set in steps from one hour to a maximum of 6 hours.

Scene "Vacation

The "Vacation" scene enables the setting of the holiday duration in days. The holiday duration is entered in days from the current day via the slider. Activating the holiday function ensures that the temperature in the rooms does not fall below the minimum temperature (frost protection).

In contrast to the Walk scene (setback temperature), in the Vacation scene the temperature is set to the frost protection temperature. The active holiday rooms can no longer be operated with the rotary wheel.

Hot water preparation (only with hot water connection via the bus systems Open Therm, **T2B** or 485) is deactivated for the duration of the scene. However, a set legionella protection remains active.

The running time of the scene can be set by the day up to a maximum of 30 days.

Scene "Standby"

With the standby function, the selected rooms are switched off in a frost-protected manner. In contrast to the Vacation scene, the Standby function has no time limit.

Note the setting for switching off the hot water preparation. In the Profi menu of the **heatapp! base, you** can choose between room shut-off and operating mode shut-off for hot water preparation.

If the switch-off for hot water preparation is set to "Room", the hot water preparation is also deactivated if all rooms are in standby mode. If a room remains active, hot water preparation takes place according to the switching times.

If the switch-off of the water heating is set to "Operating mode", it remains in automatic mode even in standby mode and the control takes place according to the switching times, even if all rooms are in standby. The standby function corresponds to the "Summer" operating mode.

8.4.2 The "Settings" menu

The "*Settings*" operating level is used to access advanced functions.

The menu items "*My Profile*", "*Design*", "*Switching Times"* and "*Live View" are available* for all users.

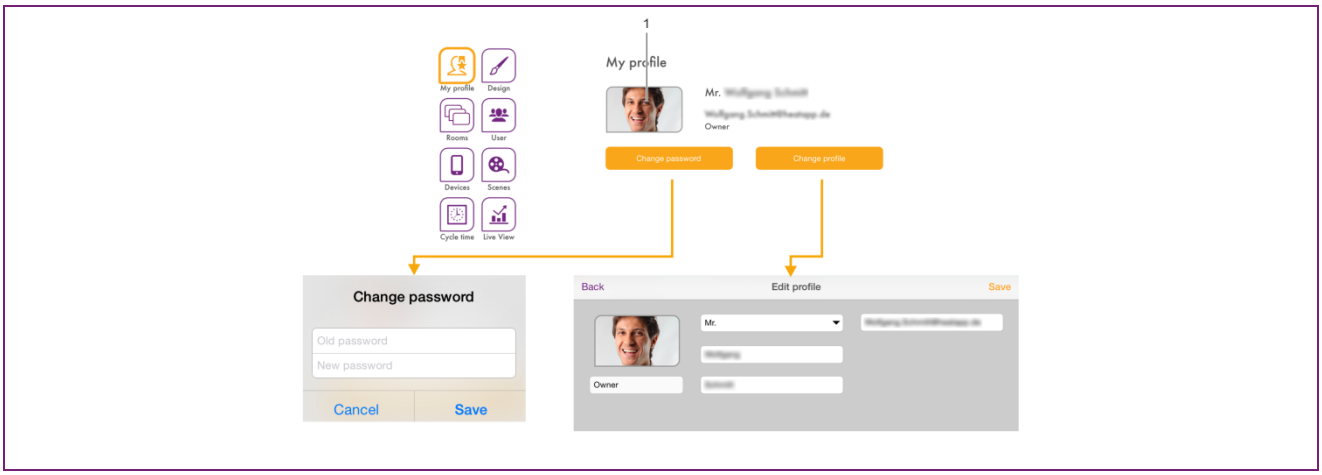
Professionals and administrators also have the additional menu items "*Rooms*", "*Users*", "*Devices"*, "*Scenes", "System"* and "*Gateway" at* their disposal.

Menu "Settings"

Tapping the cogwheel symbol takes you to the settings level. On the left side are the individual menu icons.

On the right-hand side you can edit the individual menu items.

Edit user profile



In the "*My Profile*" area, you can edit the profile of the currently logged-in user.

Profile picture change

Via button (1) you can assign a profile picture to the user from the gallery or via the camera of the device.

Password change

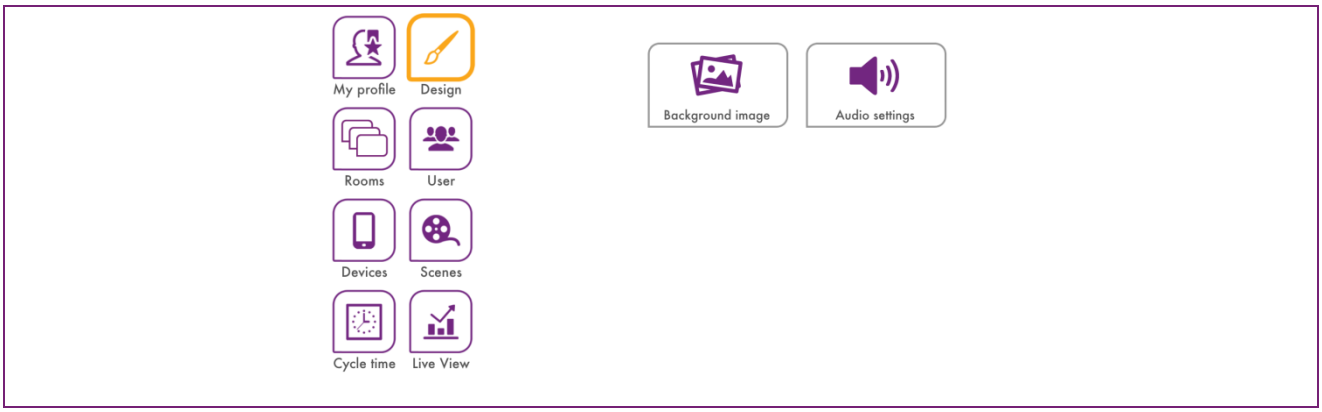
Tap the "*Change Password*" button to change the password of the currently logged-in user.

Edit user profile

Tap the "*Edit Profile*" button to change the user data of the currently logged-in user.

The user role cannot be changed.

App design Customise



In the "*Design*" area, you can edit the design and audio settings of the app.

Change background image

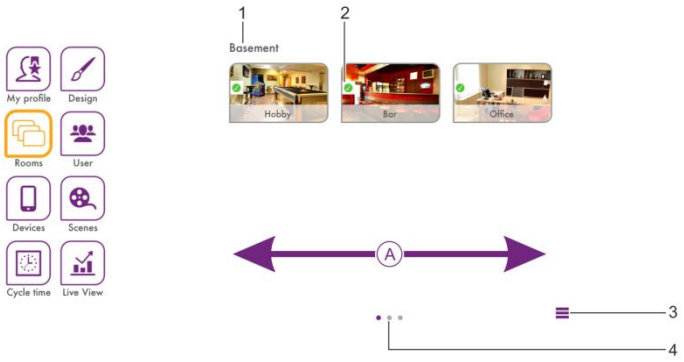
Tap the "*Change wallpaper*" button to change the background image of the app. You can select a wallpaper from the gallery or create one directly via the device's camera (device-dependent).

Alternatively, you can select one of the four supplied **heatapp!** standard wallpapers.

Audio settings

Tap the "*Audio settings*" button to switch the acoustic feedback for the rotary wheel on or off.

Rooms and spacegroups



1	Name of the room group	3	*„Edit room groups"* icon
2	*"Room State"* symbol	4	Number of room groups

Note

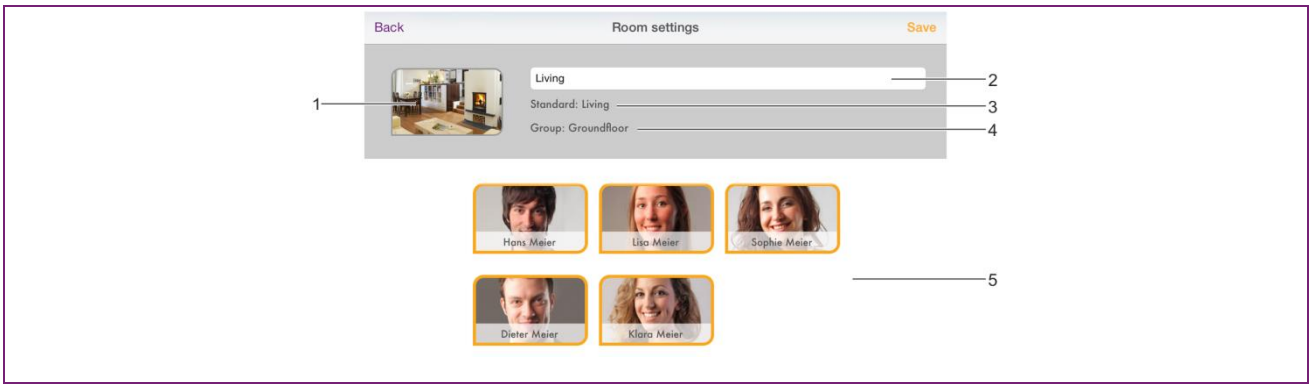
The available rooms are created by the expert during commissioning. The names of the rooms are also defined.

When used for the first time, all rooms are displayed in this view. No room groups have been created yet (to create room groups see chapter "Rooms and spacegroups", on page 40).

- Swipe A horizontally to switch through the room groups.
- Rooms are moved between the room groups by drag & drop.
- Rooms are selected for editing by simply tapping on them.
- Small symbols in the room images indicate the State of the rooms.

Symbol	State
	Room in operation, everything in order.
	Room undefined, no radio components assigned.
	Malfunction of a wireless component in the room (e.g. battery room sensor empty).

Rooms edit



1. Spatial image
2. Room name (displayed name)
3. Default name (set during commissioning)
4. Room group
5. User list

Here you can change the displayed room name, assign a room image to the room and assign the room to specific users.

1. Tap on a room in the "*Rooms*" area. The dialogue window "*Room settings*" is displayed. Make the desired setting according to the following description.
2. Tap on "*Save*" to apply the settings for the room. Tapping on "*Back*" discards the changes.

Change displayed room name

To rename a room, tap on the room name and enter the desired name. Only the **displayed room name is** changed. This change does not affect the default name assigned in the **heatapp! base** setup wizard.

The default name can only be changed in professional mode (*Settings / System / Professional*) of the **heatapp! base** or by going through the setup wizard again.

Note

If the default name is to be used as the displayed name, delete the name in the input field. The input field is then automatically preset with the default name of the room.

Change room images

To change the room picture, tap on the room picture. You can create a picture using the unit's camera or select one from the gallery. Alternatively, you can select one of the supplied room pictures.

User allocate

The users already created are displayed.

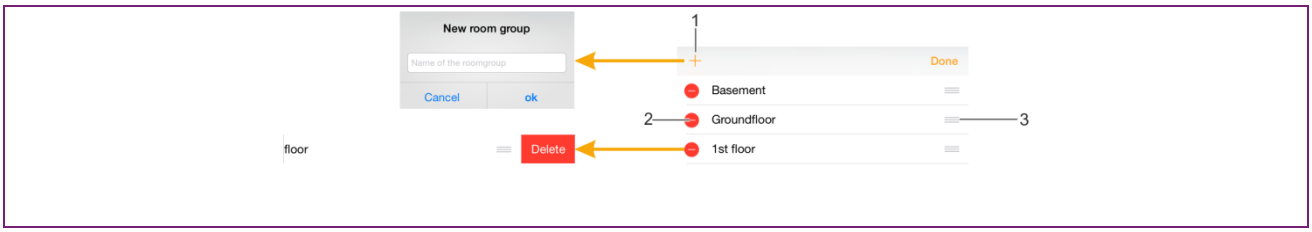
Users who are authorised to control this room are shown with an orange frame. Users who are not authorised to control this room are shown without a frame. By tapping on the respective user, the rights for the room in question can be granted and revoked.

Delete rooms

Deleting rooms is only possible via the setup wizard. The deletion process always affects the selected room and all subsequent rooms that have already been created.

If several rooms have already been created, it is not possible to delete a single room between the created rooms.

Room group create



1. Symbol "*Create room group*
2. *Delete room group*" icon
3. *Move room group*" icon

It is often useful to create room groups. In this way, you can comfortably compile room groups for floors or sensible groupings.

Room groupn create and edit

1. In the "*Rooms*" area, tap the "*Edit room groups*" icon. A dialogue window with the existing room groups is displayed.
2. Tap the "+" symbol. The dialogue window "Create room group" is displayed.
3. Enter the name of the room group and confirm the entry with "*Ok*".

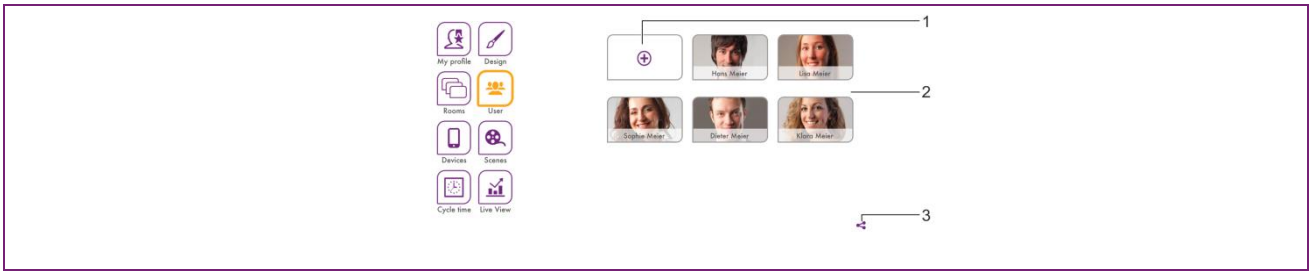
The room group has been created and is now available.

- To delete a room group, tap the "-" symbol.
- To rename a room group, tap the name of the room group.
- To move a room group, tap the "*Move room group*" icon and drag the room group to the desired position in the list.

4. Tap on "*Done*" to apply the settings.

You can now move the rooms between the room groups using Drag&Drop.

User manage



1 Symbol "*Create user*

2 User list

3 *Invite to **heatapp!** connect*" icon

In the "*Users*" area, all created users are displayed with the exception of the user currently logged in. Users can be created and edited in the "*Users*" area.

Here you can also send invitations to **heatapp!** connect to other users.

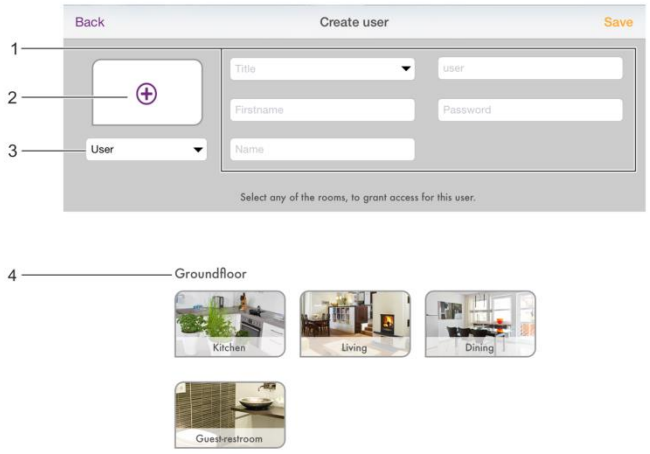
Each user is assigned a user role. The following user roles are available:

-Administrator

-Specialist

-User

User create



1 Personal data

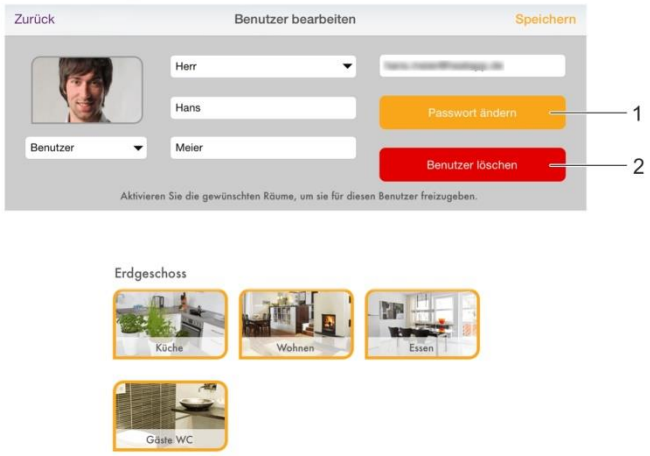
2 Profile picture

3 User role

4 Room list

1. Tap the "*Create user*" icon in the "*Users*" area. The dialogue window "*Create user*" is displayed.
2. Select the user role for the new user.
3. Enter the personal data in the input fields and select a user name and password.
4. Tap on the rooms that are to be assigned to the user. To select all rooms in a group, tap on the name of the room group. Swipe horizontally to switch through the room groups.
5. Tap on "*Save*" to create the user. Tapping on "*Back*" cancels the creation of a user.

Edit user data, delete user



1 *Change password*" button

2 *Delete user*" button

Editing a user is done in the same way as creating a user.

There are only two additional buttons for changing the password and deleting the user.

1. Tap on a user in the "*Users*" area. The "*Edit User*" dialogue box is displayed.
2. Make the desired changes.
3. Tap on "*Save*" to apply the changes. Tap on "*Back*" to discard the changes.

Note

The user data of the respective logged-in user are changed in the "My Profile" area.

Invite users to heatapp! connect invite

With **heatapp! connect, it is** possible to operate the **heatapp!** system from anywhere. No matter where you are, you can access your heating system via the app.

In the "*Settings / Users*" area, the share icon is located at the bottom right.

Tap the icon to open the menu "*Invite to heatapp connect*".

Have the QR code scanned directly with another operating device or tap the "*Send e-mail*" button and enter the desired e-mail address. Then tap the "*Send*" button.

The invited user must have the app installed on his end device in order to use **heatapp! connect.** He needs the access data for his user account independently of the invitation. Please inform him of these separately.

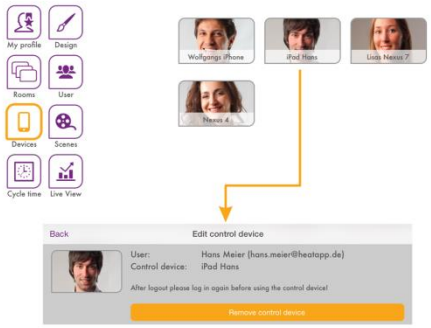
The invited user links the installation to the app by tapping the "*Accept invitation*" button in the email or by scanning the QR code in the email with their operating device.

Note

The app must be downloaded separately from the Apple AppStore or Google Play Store on each end device (smartphone/tablet). The invitation links the app to the installation.

The access data for the user must be communicated to the user separately.

Devices manage



In the "*Devices*" area, the operating devices with which the users have logged on to the **heatapp! base are** displayed.

All operating devices that have registered / had registered with the customer's **heatapp!** system are displayed here. If a control panel is lost or the administrator / specialist wishes to remove a control panel, this is possible here.

Logging out the control unit

1 Touch the control unit you want to remove.

The dialogue window "*Edit operating device*" is displayed. This also shows which user has used the operating device.

2 Tap the "*Deregister operating device*" button to delete the corresponding operating device from the list.

In order to be able to continue using the operating device, it is necessary to log in again with the user name and password.

Scenen Edit

In the "*Scenes*" area, the rooms for which the scenes are to apply are assigned to the scenes.

1. Tap on a scene to open the room assignment.
2. Tap on the rooms that are to be assigned to the respective scene. Swipe horizontally to change through the room groups. Selected rooms are outlined in orange.
3. Tap on "*Save*" to apply the settings for the room. Tap on "*Back*" to discard the changes.

Note

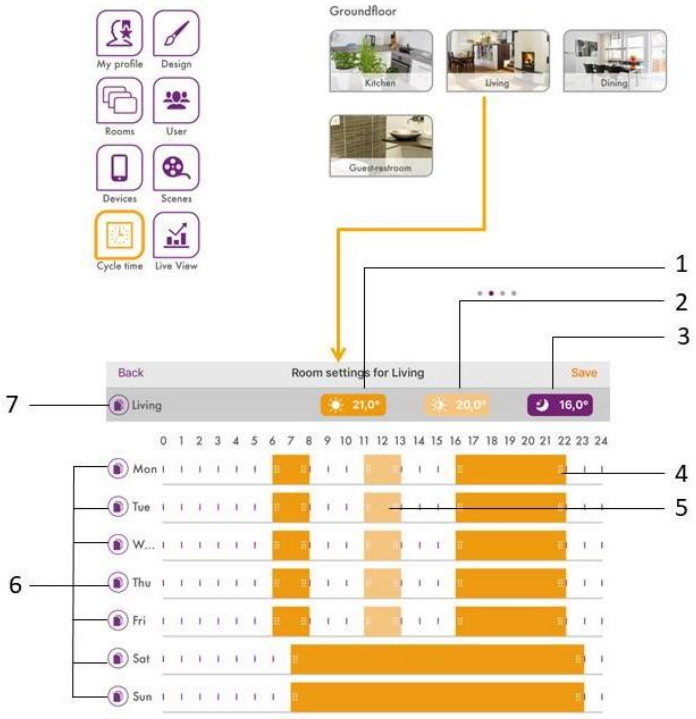
If a user activates a scene, the scene is only activated for the rooms that have been assigned to the user.

Example:

The Boost scene was assigned to all rooms.

However, only the rooms "*Living room*" and "*Kitchen"* have been assigned to the user. If the user activates the "*Boost*" scene, the scene is also only activated for the rooms "*Living room*" and "*Kitchen".*

Switching times edit



1 Setting the comfort temperature

2 Setting the economy temperature

3 Setting the setback temperature

4 Switching time "Comfort temperature active

5 Switching time "Economy temperature active

6 Copy switching times (by day)

7 Copying switching times (room by room)

In the "*Switching times*" area, the switching times for the comfort, economy and setback temperatures can be set separately for each room.

A maximum of three switching times can be set per day. In areas where no switching time is set, the heatapp! system regulates the selected room to setback temperature.

The following basic settings are preset:

- Comfort temperature temperature (symbol sun): 21.0°C
- Saving temperature (symbol half sun): 20°C
- Lowering temperature (moon symbol): 18.0°C

-Heating hours : Monday to Sunday between 06.00 and 22.00 hrs.

The switching times for hot water can be reached by swiping horizontally. A maximum of three switching times can be created per day. Between the switching times, the system regulates the hot water temperature to the setback temperature.

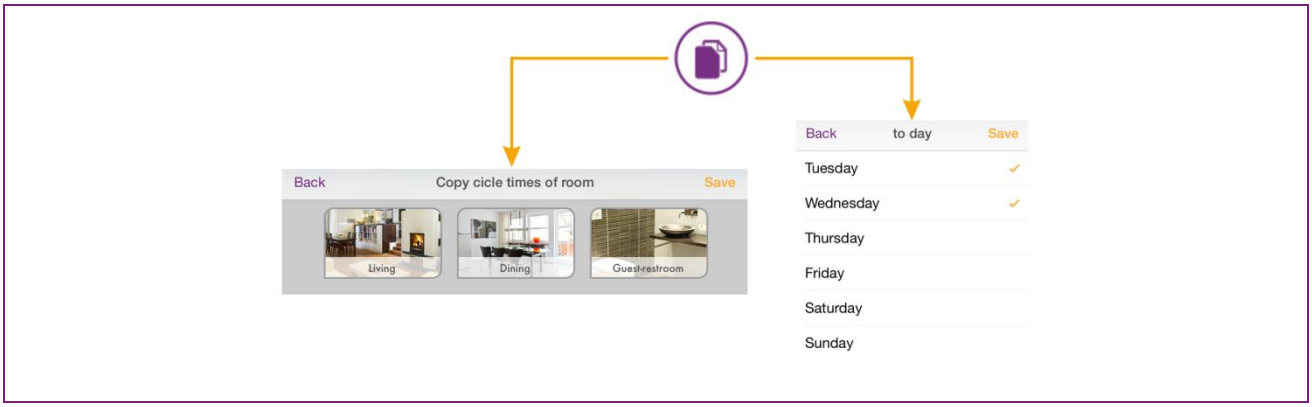
The following basic settings are preset:

- Hot water day setpoint temperature(sun symbol): 50° C
- Hot water night setpoint temperature (moon symbol): 40° C

Switching times edit

1. Tap on a room in the "*Switching times*" area. The dialogue window "*Switching times for* ..." is displayed.
   - To insert a switching time, tap in a free area of the time scale of the desired day and drag on a new switching time.
   - To move a switching time, tap in the middle of the switching time and drag the switching time to the desired position.
   - To change a switching time, drag the ends of the switching time to the desired time.
   - To delete a switching time, pull the ends of the switching time together.
2. Tap on "*Save*" to apply the settings for the room. Tapping on "*Back*" discards the changes.

Copy switching times



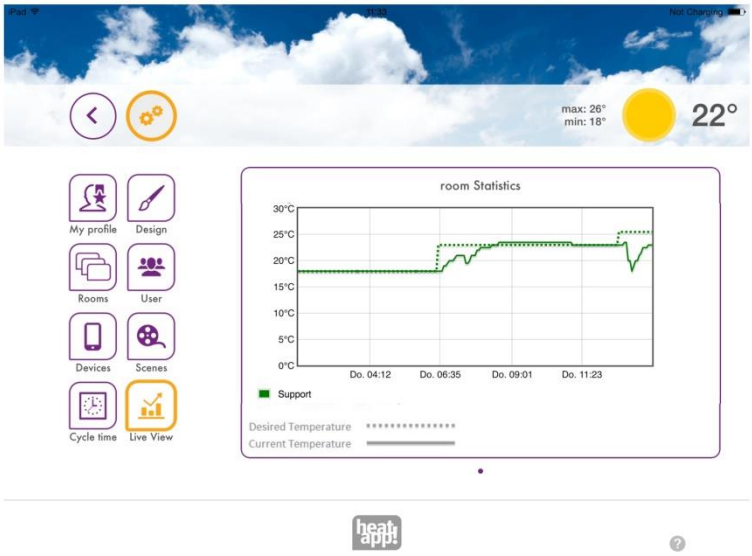
Switching times can be copied room by room and day by day.

1. Tap on a room in the "*Switching times*" area. The dialogue window "*Switching times for* ..." is displayed.

   Tap the symbol in front of the room name if you want to transfer the switching times of the selected room to other rooms.

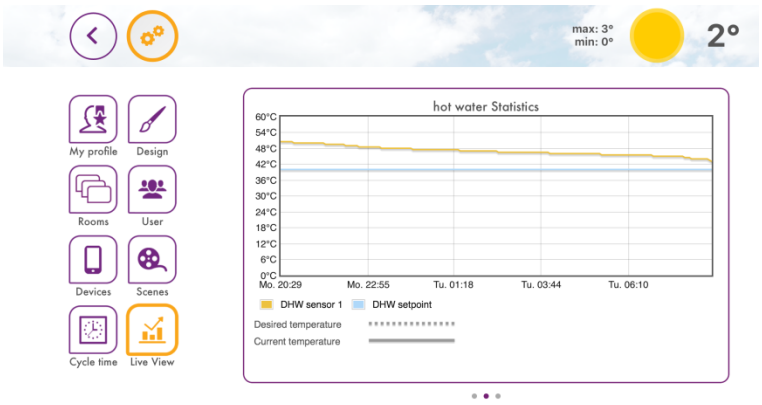
   Tap the symbol in front of the day if you want to transfer the switching times of the selected day to other days.
2. In the dialogue window, tap on the rooms or days to which the switching times are to be transferred. Multiple selection is possible.
3. Tap on "*Copy*" to transfer the switching times. Tapping on "*Back*" cancels the process.

Live View

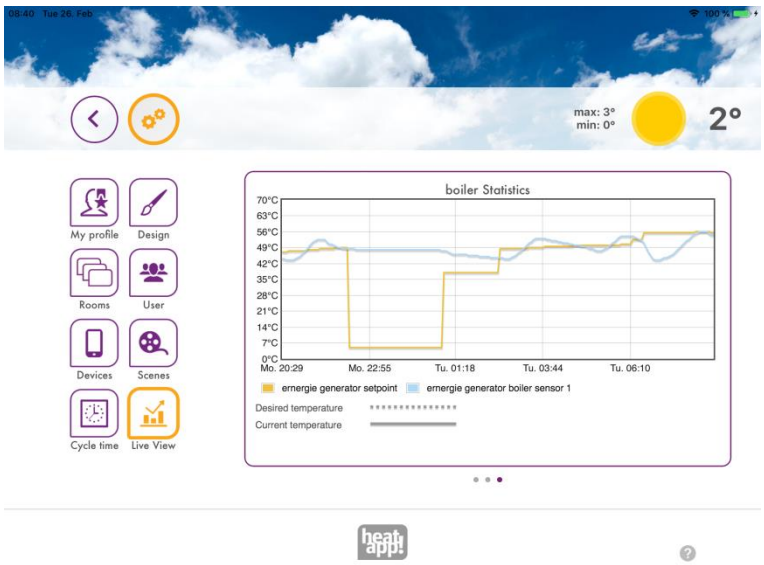


In Live View, the statistics of the setpoint and actual values of the last 12 hours are displayed. Long-term statistics can be displayed using the monitor. See also chapter "

When connected to the energy generator via OpenTherm or THETA controller, the hot water supply and the energy generator are also displayed, if available.and the energy generator.s.



.



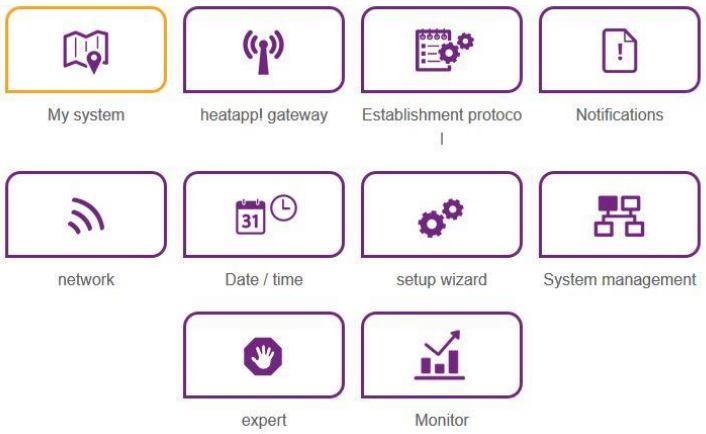
The "Live View"area shows the chronological progression of the desired and the Current temperature of the selected rooms, water heating and the energy generator.

1. By swiping horizontally, you can switch between rooms, hot waterand energy generator.
2. To change rooms, tap the symbol at the bottom right.
3. Select the rooms for which Live View is to be displayed.
4. Tapping on "*Save*" saves the data. The process is cancelled with "back".

Note

A maximum of five rooms can be selected for simultaneous display so that the display does not become too confusing.

8.4.3 The menu "System"



In the "*System*" area you have access to the complete menu of the **heatapp! base.**

Note

The menu of the **heatapp! base** can also be called up in the local network using the IP address on a PC or laptop. To

find out the IP address of your **heatapp! base, see** chapter "Network" on page 51.

My plant

In the "*My system*" area, you can edit the name and location for the **heatapp!** system.

Detailed information on the **heatapp! base** and the **heatapp! gateway is** also displayed here.

Tap on the corresponding input fields to change the plant name or the plant location.

Tap the "*Save*" button to apply the settings.

Use the button to return to the "*System*" menu.

heatapp! gateway

In the "***heatapp! gateway***" area, the currently connected **heatapp! gateway is** displayed with all device details.

- Use the "*To **heatapp! gateway** menu*" button to open the **heatapp! gateway menu.**
- Use the "*Delete **heatapp! gateway** connection*" button to delete the connection of the heatapp! **base to** the **heatapp! gateway if another heatapp! gateway is** to be connected.

Note

The menu of the **heatapp! gateway** can only be called up in the local network. It is not possible to call up the menu of the heatapp**! gateway** via **heatapp! connect.**

Use the button to return to the "*System*" menu.

Setup protocol

In the "*Setup log*" area, a setup log can be generated and sent by e-mail. The setup log contains all the information about your **heatapp!** configuration.

Generate setup log

- Tapping the "*Create new Establishment protocol*" button creates a new protocol.

The *Establishment protocol* is stored in the **heatapp! base** until a new *Establishment protocol* is generated.

In this way, you can access the most recently generated *Establishment protocol* at any time ("*Display Establishment protocol* " button) and / or send a PDF by e-mail ("*Send Establishment protocol "* button).

Sending the setup protocol by e-mail

Tap on the button "*Add new e-mail address*".

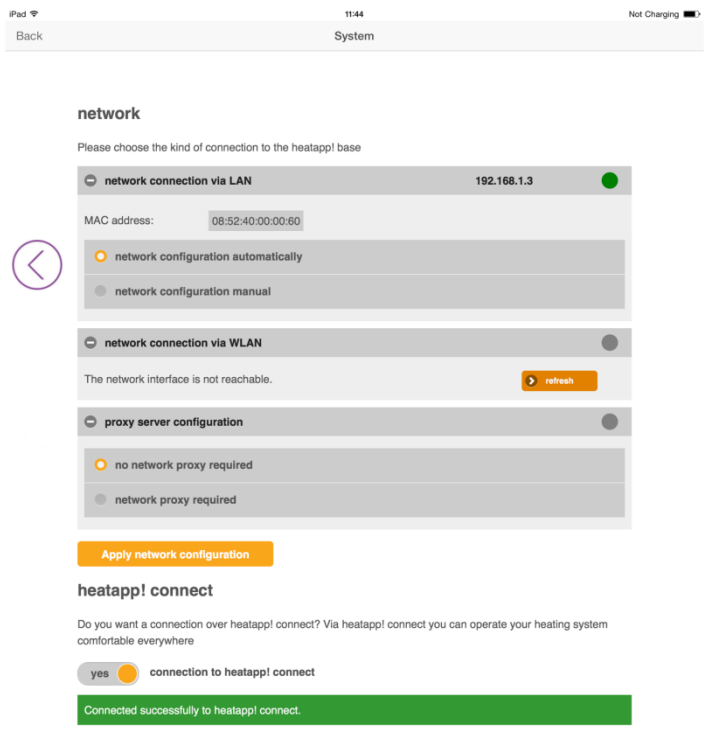
Enter the email address to which the setup log is to be sent. You can enter several e-mail addresses.

Tap the "*Send setup protocol*" button to send the setup protocol.

If the setup protocol was sent successfully, a corresponding message is displayed.

Use the button to return to the "*System*" menu.

Network



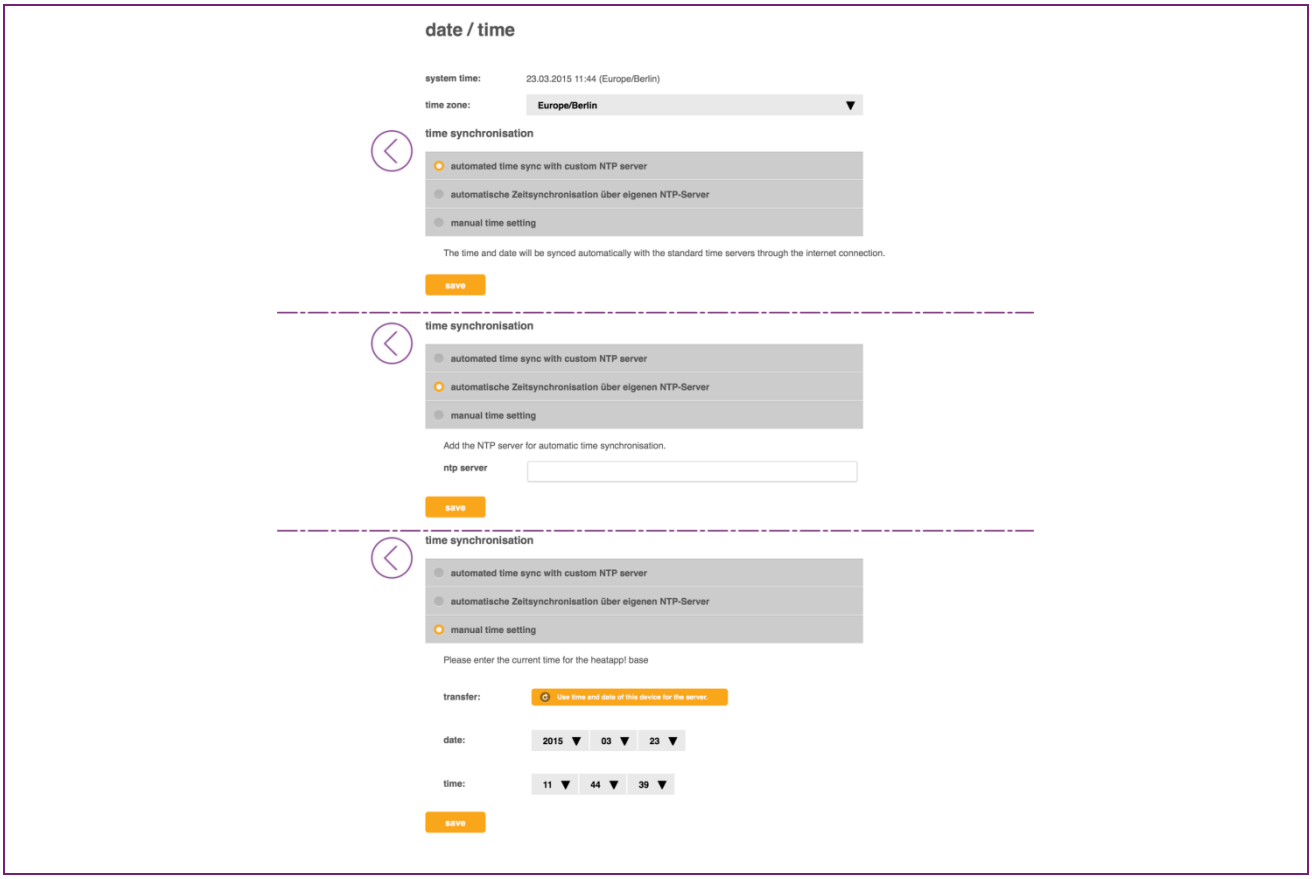
The current network settings are displayed in the "Network" area.

You can change the network settings here, e.g. if a WLAN connection is to be set up subsequently. You can also activate the connection to **heatapp! connect** here.

You can also activate the continuous improvement process here to send anonymous reports to heatapp! This way you actively help to further improve the system.

Use the button to return to the "System" menu.

Date / Time



In the "*Date/Time*" area you can make the settings for the real-time clock. This is necessary, for example, if the manual time setting has been selected (summer/winter time).

You can choose between the following variants:

- Time synchronisation via the Internet
- Time synchronisation via own NTP server
- Manual time setting

Tap the "*Save*" button to apply the selected settings.

Use the button to return to the "*System*" menu.

Notifications

The **heatapp!** system sends push and e-mail messages in the event of malfunctions or maintenance notifications.

In the menu item "*Notifications*", e-mail addresses can be saved that are to be used for sending fault messages and maintenance notifications by e-mail. These e-mail addresses are offered as possible dispatch addresses when sending the setup protocol.

Push messages are system notifications that the **heatapp! base** sends directly to the interface of the operating device (smartphone / tablet) so that the user is informed immediately. These can be fault messages or maintenance notifications.

By tapping on the individual users, you can define which users are to receive the notifications.

Use the button to return to the "*System*" menu.

Setup wizard

The menu item "*Setup wizard*" restarts the setup wizard. This may be necessary, for example, if you move house and change the connection to the boiler.

System management

In the "*System management*" area, you can update the **heatapp!** system software and perform a data backup.

Updating the system software

The heatapp! system is constantly being further developed. In order to let our customers participate in this, we have developed an update system which always offers you the latest version.

You decide whether you want to carry out the update offered or whether you prefer to remain at the previous State.

Below the current software, the display shows whether a software update is available.

Note

In the local network, you will receive a **notification from** the app when there is an update of your heatapp! system.

Software updates are only displayed when the **heatapp!** system is connected to the internet.

If you update the software of the **heatcon! EC**, please check whether the new software is compatible with the software of the **heatapp! gateway.**

If necessary, also carry out a software update of the **heatapp! gateway.** Depending on the customer's Internet tariff, updating the device software by download via the Internet may incur additional costs.

Restart now

The "*Restart now*" button triggers a restart of the heatapp! base.

Note

Restarting the **heatcon! EC** deletes the saved data of the "Live View".

Reset to factory settings

The "*Reset now*" button resets the unit to the factory settings.

Note

When resetting, all set data will be irretrievably lost and a new set-up is required. Please only use this option if requested to do so by our support or your specialist.

Monitor

The monitor shows current and historical data of your heating system. If you want to save the data for more than 24 hours, insert a USB memory stick into the system and activate the save option.

The system saves the data until the USB storage space is exhausted. After that, the oldest data is automatically overwritten.

Note

Before removing the USB memory stick from the system, please deactivate the option to avoid data loss.

The data is overwritten automatically without prior warning. If you want to keep the data permanently, please always ensure that there is sufficient storage capacity on the USB memory stick.

Backup of the system data

You can make a data backup with the help of a USB memory stick. With this backup system, you can transfer the installation to a new unit or quickly restore the unit to the backed-up state after a reset.

Plug a USB stick into a free USB port on the heatapp! base.

By tapping the "*OK*" button, a backup file is saved on the USB stick.

Restore the backed up system data

If you want to restore a heatapp! system that is in the delivery state with a backup from a USB stick, you must first run the setup wizard to restore the basic settings.

By tapping the "*update*" button, the selected backup is transferred to the system.

Use the button to return to the "*System*" menu.

8.4.4 Expert

The Professional menu is divided into the following sections

System

Room 1-24

Energy generator (only when connected to the energy generator)

Controller (only in conjunction with THETA and **heatapp! base T2B**)

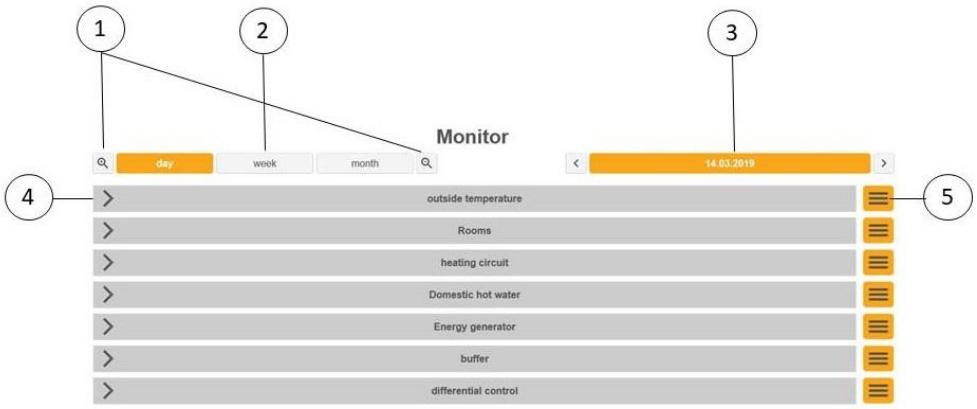
Fault messages

Configuration

Information and changeable parameters are available for each area. These differ depending on the connection to the energy generator.

8.4.5 Monitor

The monitor is used to display current and historical data of the heating system.



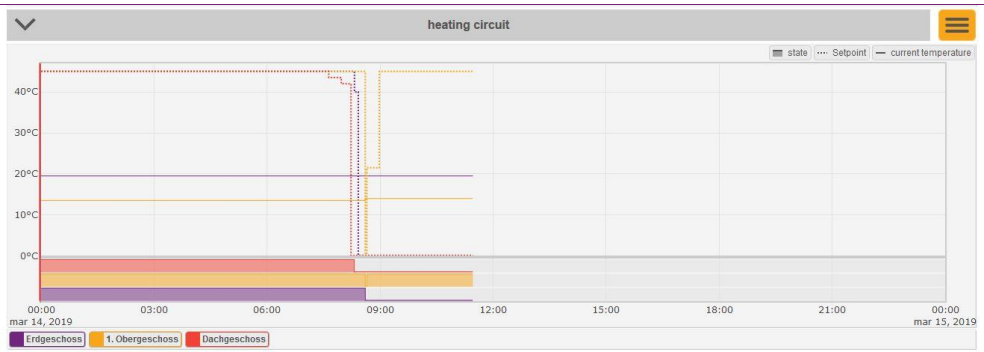
1	Increase / decrease the X-axis (horizontal axis)	2	Ad selection day / week / month
3	Selection date	4	Representation of the individual areas
5	Menu		

Tapping / clicking on the arrow (4) opens the display of the respective area.

By tapping / clicking on the menu, further selection options are available.

1	Increase / decrease the Y-axis (vertical axis)	2	Selection room / heating circuit / sensor etc.
3	Save	4	Create screenshot (only possible on PC / laptop)

The selected areas are highlighted in orange in the menu. White areas are not selected.



All selected areas (outdoor sensors, rooms, heating circuits, etc.) are displayed below the diagram as a legend. Individual areas can be hidden by clicking / tapping. The State is displayed below the diagram. A full bar indicates activity, an empty bar indicates inactivity of the respective device (heating circuit, pump, energy generator, etc.).

By double-clicking / tapping the desired time, the red vertical line moves. This makes it possible to compare the individual graphs. This makes it easy to determine, for example, where the demand is coming from.

8.5 Access data APP

Make a **Note** here of the access data to your *heatcon!* system:

User level	Username	Password
Professional:	_____	_____
Administrator:	_____	_____

When connecting to the *heatapp!* individual room control, please **Note** the password of the *heatapp! gateway* here:

heatapp! gateway	
Password:	_____

NOTE

Create a setup log and a data backup after completing the installation.

9 List of abbreviations

A10VP	Output 0-10V / PWM
ABS	Lowering mode
AF	Outdoor sensor
AF2	Outdoor sensor 2
AGF	Exhaust gas sensor
ARS	Output relay normally open
ARSP	Output relay normally open potential-free
AT	Outside temperature
BLZ	GEN / burner runtime
BR1	Energy generator / burner stage 1
BR2	Energy generator / burner stage 2
BRSP	Burner lock
BUS	System data bus
BZ	Burner runtime
CP	Condenser pump/WP main pump
DHCP	Dynamic Host Configuration Protocol
DIFF	Differential control
I/O	Input/output
ECO	Eco operation
GEN	Energy generator
EFI	Sensor/pulse input
EHWW	Electric heating element hot water
EI	Input pulse
ELF	Unloading valve sensor HP
ELH	Electric heater
EO	Input optocoupler
FKF	Solid fuel boiler sensor
FPF	Solid buffer sensor
FSP	Solids pump
GB	Device bus
h2B	heatcon! 2-wire bus
HK	Heating circuit
HK1 OPEN	Heating circuit 1 Valve Open
HK1 P	Heating circuit 1 Pump
HK1 CLOSED	Heating circuit 1 Valve closed
HP	Heating buffer
HPE	Hydraulic buffer relief
HPP	Heating buffer pump
KKP	Boiler circuit pump
KSPF	Collector tank buffer sensor
KVLF	Collector flow sensor
LAN	Local Area Network
CEST	Central European Summer Time

MOD	Modulation
P	Pump
PI controller	Proportional-integral controller
PEP	Buffer unloading pump
PEV	Buffer unloading valve
PF	Buffer sensor
PLP	Buffer charge pump
PP	Primary pump
PWF	Parallel (GMT) GEN release
RF	Room sensor
RLB	Return flow limitation
RLF	Return sensor
RLH	Return hold-up / lift-up
S	Sensor
SF	Storage tank sensor
SLP	Storage tank charging pump
SLV	Solar charging valve
SLVF	Solar charging valve sensor
SMA	Fault message output
SME	Fault signal input
SOP	Solar pump
STB	Safety temperature limiter
SVL	Total forerun
SVLF	Sum flow sensor
UHK	Diverter valve HK (heating/cooling)
ULV	Diverter valve
UWW	Hot water diverter valve
VF (VLF)	Flow sensor
WEZ	Heat generator (oil/gas)
WF	Heat generator sensor (boiler sensor)
WMZ	Heat quantity
WW	Hot water
ZAF	Forced draining
ZKP	Circulation pump
ZKPF	Circulation pump sensor
ZUP	Feeder pump

10 Notes

The heatcon! system is constantly being further developed. Therefore, the documentation also develops dynamically. Please check at https://ebv-gmbh.eu/downloads/ whether a newer version of the heatcon! system manual is available.

Click here to go to the training page. Scan the QR code or visit https://learning.ebv-gmbh.de.

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