Operating Instructions UK

Heat pumps

Regulators

End customer

NIBE AP-CS2.0

We reserve the right to make technical changes.
83052206bUK – Translation of the operating manual

Please read first

This operating manual provides important information on the handling of the unit. It is an integral part of the product and must be stored so that it is accessible in the immediate vicinity of the unit. It must remain available throughout the entire service life of the unit. It must be handed over to subsequent owners or operators of the unit.

Read the operating manual before working on or operating the unit. This applies in particular to the chapter on safety. Always follow all instructions completely and without restrictions.

It is possible that this operating manual may contain instructions that seem incomprehensible or unclear. In case of questions or uncertainty, contact the factory customer service department or the manufacturer's local service partner.

This operating manual is intended only for persons assigned to work on or operate the unit. Treat all constituent parts confidentially. The information contained herein is protected by copyright. No part of this information may be reproduced, transmitted, copied, stored in electronic data systems or translated into another language, either wholly or in part, without the express written permission of the manufacturer.

Symbols

The following symbols are used in the operating manual. They have the following meaning:

Information for operators.

Information or instructions for qualified technicians.

DANGER!
Indicates a direct impending danger resulting in severe injuries or death.

WARNING!
Indicates a possibly dangerous situation that could result in severe injuries or death.

CAUTION!
Indicates a possibly dangerous situation that could result in medium or light injuries.

CAUTION.
Indicates a possibly dangerous situation, which could result in property damage.

NOTICE.
Emphasized information.

Frequently used program area

Reference to other sections in the operating instructions

Reference to other documents of the manufacturer

Frequently used program area

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Functioning of the heating and heat pump regulator

The heating and heat pump regulator consists of an operating element and an electronic control. This assumes control of the entire heat pump system, the domestic hot water preparation and the heating system. It automatically recognises the connected heat pump type.

The weather-controlled heating curve of the heating system with corresponding lowering and boosting times is set at the heating and heat pump regulator.

The domestic hot water preparation can be carried out via the thermostat (to be set at the customer) or temperature sensor (domestic hot water tank accessories or scope of supply) in accordance with requirements. The domestic hot water preparation via a temperature sensor enables intelligent, adaptive domestic hot water preparation with a high level of comfort.

Low-voltage and 230V signals are effectively isolated by the heating and heat pump regulator. This ensures maximum interference immunity.

Intended use

The unit may be used only for the intended purpose. This means:

- for controlling the heat pump and associated system components.

The unit may be operated only within its technical parameters.

! CAUTION.
The heating and heat pump regulator may only be operated in conjunction with heat pumps approved by the manufacturer and accessories approved by the manufacturer.

Exclusion of liability

The manufacturer will not be liable for damage resulting from unauthorized use of the unit.

The manufacturer's liability will also be voided in the following cases:

- if work is performed on the unit and its components in a manner that does not comply with the terms of this operating manual;
- if work is performed on the unit and its components in an improper manner;
- if work is performed on the unit that is not described in this operating manual, and this work was not expressly approved in writing by the manufacturer;
- if the unit or components in the unit are modified, redesigned or removed without the express written permission of the manufacturer.

Safety

The unit is operationally safe when used for the intended purpose. The construction and design of the unit conform to the state of the art, all relevant DIN/VDE regulations and all relevant safety regulations.

Every person who performs work on the unit must have read and understood the operating manual prior to starting any work. This also applies if the respective person has already worked with such a unit or a similar unit or has been trained by the manufacturer.

Every person who performs work on the unit must comply with the applicable accident prevention and safety regulations. This applies in particular to the wearing of personal safety gear.

DANGER!
Danger of fatal injury due to electric current! Electrical connections may be installed only by qualified electricians.
Before opening the unit, disconnect the system from the power supply and secure it from being switched back on!

WARNUNG!
Observe the relevant EN, VDE and/or applicable local safety regulations during the installation and during all electrical work.

Observe the technical connection conditions of the responsible power supply company!

WARNUNG!
Only qualified technicians (trained heating, cooling, refrigerant and electrical technicians) may perform work on the unit and its components.

CAUTION.
Setting work on the heating and heat pump regulator is only permitted for authorised service personnel and specialist companies who or which have been authorised by the manufacturer.

CAUTION.
For safety reasons: Do not disconnect the unit from the power supply, unless the unit is being opened.

CAUTION.
Never shut off heating circle to the heat pump (frost protection).

CAUTION.
Use only accessories provided by or approved by the manufacturer.

Care of the unit

The outer surfaces of the unit can be cleaned with a damp cloth and household cleaning products.

Do not use cleaning or care products that contain abrasives, acids and/or chlorine. Such products would destroy the surfaces and could also damage the technical components of the unit.

Maintenance of the unit

The heating and heat pump regulator does not require regular maintenance.

Customer service

For technical assistance, contact your qualified technican or the manufacturer's local service partner.

Operating instructions for your heat pump, Appendix, customer service, addresses for service

Warranty / Guarantee

For warranty and guarantee conditions, please refer to the purchase documents.

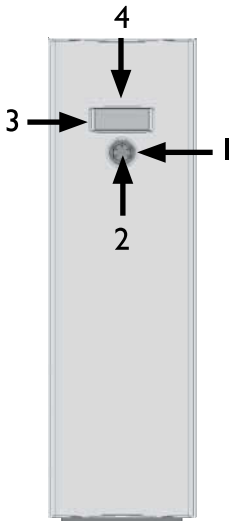
NOTICE.
Please contact your dealer concerning warranties and guarantees.

Disposal

When decommissioning the unit, always comply with applicable laws, directives and standards for the recovery, recycling and disposal of materials and components of cooling units.

"Dismantling" section in the operating manual intended for qualified technicians.

The control unit



1 Status display
2 "Rotary pushbutton"
3 Screen
4 USB interface

STATUS DISPLAY

Ring around the rotary pushbutton lights up **green** = System operating **properly**

Ring around the rotary pushbutton lights up **green/red** = **self-resetting operational interruption**

Ring around the rotary pushbutton lights up **red** = **malfunction**

SCREEN

Operating information, functions and setting options for the heating and heat pump regulator and the heat pump system as well as error messages are displayed in the screen of the operating element.

The screen is normally not illuminated. If the „rotary push-button" is used, the screen illumination will switch on. It switches off automatically if the "rotary pushbutton" is not pressed after longer than 10 minutes.

Dark background (inverted) = Symbol or menu field is activated.

Activating and selecting the navigation arrow will take you from one menu level to the next higher or lower one.

Some menus require the settings you have made to be saved. You can do so through activation and selection of ☑.
You can also cancel the settings you have made through activation and selection of ☒.

If a menu has more entries than the screen can display, a scroll bar will appear on the left of the screen. This shows the location you are at in the menu. If no symbol or menu field is selected, you can scroll down the screen display by turning the "rotary pushbutton" to the right. This displays further menu entries. You can scroll back up the screen display again by turning the "rotary pushbutton" to the left.

"ROTARY PUSHBUTTON"

Turn =
Activate symbol for a required program level or menu field or scroll sown (or up) the screen display.

Press (short) =
Select **activated symbol** (= change to the corresponding program level) or enable **activated menu field** for entering data and values.

Turn =
Set data and values in the enabled menu field.

Press (short) =
Finish entering data and values in a menu field.

If no action is performed with the "rotary pushbutton", the program will automatically return to the navigation screen after 3 seconds.

After a further 7 seconds without action, the program will automatically return to the standard screen.

ERROR MESSAGES

If a fault occurs in the system, a corresponding error message will appear in the screen.

Page 25, Error Diagnosis / Error Messages, and
Page 27, Acknowledging a Fault

Press (7 seconds long) = Acknowledge error message and restart the heat pump system (= manual reset).

LANGUAGE OF THE SCREEN DISPLAY

You can specify the language to be used for displaying the menus and texts in the screen.

"Select Language of the Screen Display" section in the operating manual intended for qualified technicians.

MENU DISPLAY

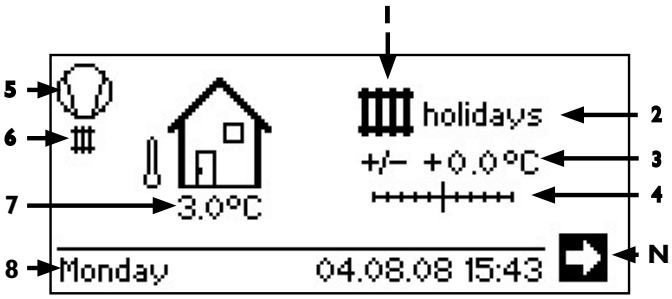
The menu structure is such that menu items that are irrelevant to the system or machine type will be hidden. This means that the display on the regulator may vary from the screens shown in this operating manual.

STARTUP ASSISTANT

The control unit is equipped with a commissioning assistant. This assistant will guide you through the most important settings of the regulator during initial commissioning. The "GO" symbol in the main menu flashes. Click on the symbol to launch the commissioning assistant. The symbol will disappear as soon as initial commissioning is complete. For more information on the commissioning assistant, please refer to the corresponding sections in this operating manual.

Standard screen "Heating"

The standard screen (= standard menu) serves for rapid information on the selected heating mode of operation. You can also set the basic settings for the heating functions here in a quick and convenient way.



1 Symbol for program area "Heating"
The symbol used for the heating indicates that the adjoining displays and setting options are only relevant to the heating. However, you can press the symbol to switch between the different supply types of the heat pump. This allows you to, for instance, display the symbols used for heating hot water, cooling or swimming pool. The options vary with the heating system you own and the consumers you have connected to it.

2 Current heating mode of operation
Auto(matic), Holidays, 2 hg, Off or Party.

3 Digital temperature display
Shows the extent to which the hot water return flow temperature is to deviate from that of the set heating curve.
Maximum value of the potential deviation: ± 5 °C

4 Temperature scale
Shows in graphical form the extent to which the hot water return flow temperature is to deviate from that of the set heating curve.
Maximum value of the potential deviation: ± 5 °C

5 Compressor
The compressor symbol will turn for as long as the compressor is running.

6 Current operating condition

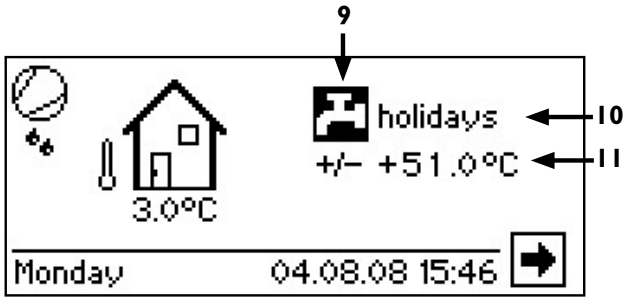
- Heating
- Hot water
- Screed heating
- Defrosting
- Electr. suppl.
- Pump flow (only SW and WW)
- Error
- Cooling

7 Current amb. temp.

8 Date and time

N Navigation arrow
here: Change to the navigation screen

Standard screen "Domestic hot water"



9 Symbol for program area "Domestic Hot Water"
Indicates that domestic hot water functions are being controlled in the standard screen.

10 Current domestic hot water mode of operation
Auto(matic), Holidays, 2 hg, Off or Party.

11 Set temperature for heating hot water

◉ QUICK CHANGE OF THE HOT WATER RETURN FLOW TEMPERATURE

Do you require a setting different from the programmed heating curve with a higher/lower hot water return flow temperature?

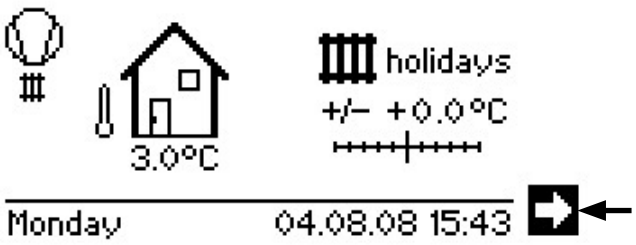
① Turn "rotary pushbutton" until the plus/minus sign (+/-) has a dark background …

② Press "rotary pushbutton" once…

You can now increase/lower the hot water return flow temperature in 0.5 K increments.

NOTICE.
The temperature scale (4) and temperature display (3) show the changes made in graphical and digital form. The zero point reference of the temperature scale and temperature display is the set heating curve.

CHANGE TO THE NAVIGATION SCREEN



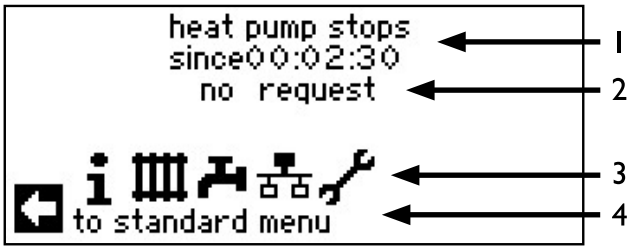
Activate navigation arrow ➡ and select by pressing the "rotary pushbutton".

NOTICE.
The navigation arrow is automatically activated in the initial idle state of the standard screen (i.e. with a dark background).

The Navigation Screen

The navigation screen provides an overview of the various program areas of the heating and heat pump regulator.

BASIC DISPLAY



1 Current operating state of the heat pump with time indication

2 Reason for the current operating state or fault message

3 Symbols for the program areas of the heating and heat pump regulator

Standard symbols which are always displayed are:

ⓘ Symbol for program area "Information and Quick Setting"
Operating information and system operation by the user
Enabled for all users

Symbol for program area "Heating"
Program area for setting all parameters for the heating and mixing circle
Only for qualified technicians

Symbol for program area "Domestic Hot Water"
Program area for setting all parameters for domestic hot water preparation
Only for qualified technicians

Symbol for program area "Service"
Program area for setting the basic system parameters
Only for authorised service personnel
In parts, password protected area

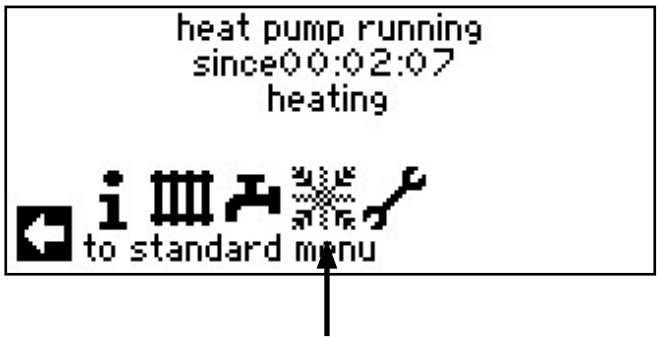
Symbol for program area "Parallel Connection Master." Connection of up to 4 heat pumps with one another.
Only for qualified technicians.

Symbol for program area "Parallel Connection Slave." Only for qualified technicians.

4 Information on the activated symbol.

DISPLAY OF FURTHER PROGRAM AREAS

Depending on the type of heat pump connected, the navigation screen can display the following program area symbols:

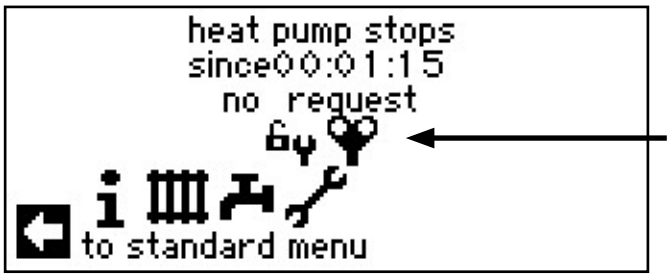


Symbol for program area "Cooling"

NOTICE.
Depending on your system and the configuration of the heating and heat pump regulator, further program area symbols can be shown in the screen.

SPECIAL PROGRAMS DISPLAY

If special programs are active, their symbols will be displayed in the navigation screen.



Ventilation program

Customer service or fitter access

Screed heating program

Short program

Forced heating

Forced domestic hot water

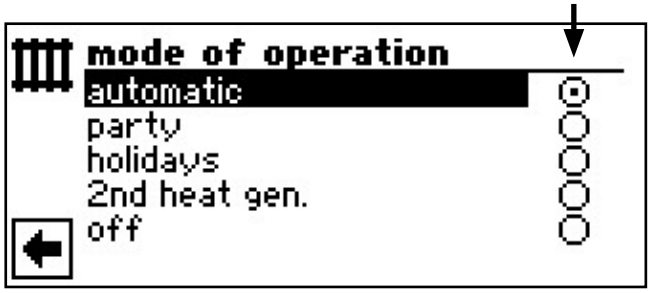
Forced defrosting

USB stick is plugged in

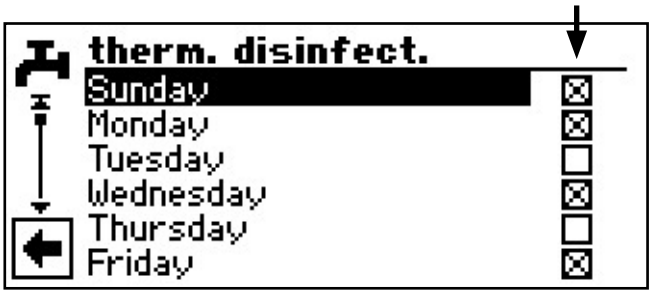
NOTICE.
If you select and activate the symbol of a special program, you will be taken directly to the relevant special program.

The displays described on the following pages allow / require you to make a selection. In general:

– you can **only** select **one option** in **circular fields**



– you can "click" **boxes multiple times**



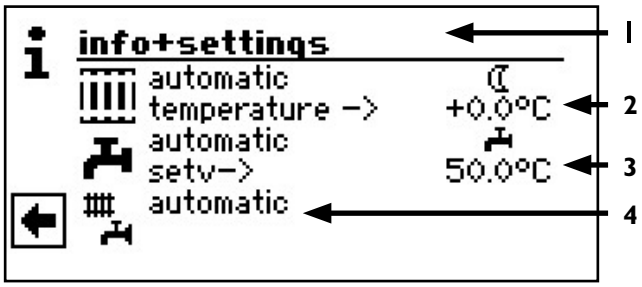
ⓘ Program area "Information and Quick Setting"

SELECT PROGRAM AREA

Proceed as follows:

① In the navigation screen, select the symbol ⓘ …

② The screen changes to the menu "Information on Settings":



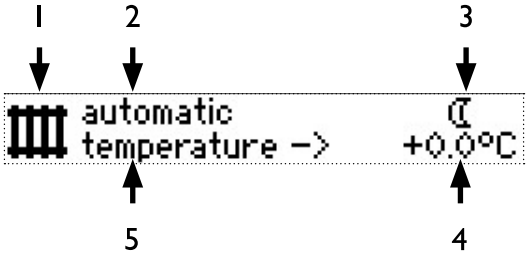
1 **Symbol for program area "Information and Quick Settings" with menu title**

2 **Menu "Quick Setting: Heating":**

3 **Menu "Quick Setting: Domestic Hot Water"**

4 **Menu "Quick Setting: Complete System"**

THE MENU "QUICK SETTING: HEATING"



1 **Symbol for program area "Heating"**

2 **Menu field "Current mode of operation"**
Possible displays: Automatic
Party (=Continuous daytime operation)
Holidays
2 hg (=Second heat generator)
Off

3 **Menu field "Heating time progs"**
Shows whether the heat pump is operating in day or night mode:

✳ Symbol for day mode: Heating is raised

☾ Symbol for night mode: Heating is lowered

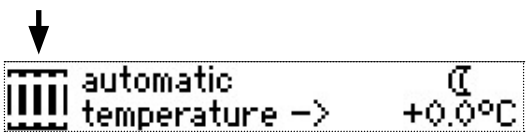
4 **Menu field "Temperature deviation".**
Shows the extent to which the currently required hot water return flow temperature deviates from that of the set heating curve.

5 **Menu line title "Temperature deviation"**

⊙ SETTING THE HEATING MODE OF OPERATION

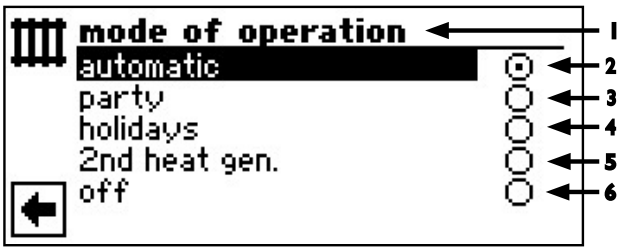
Proceed as follows:

① In the navigation screen, select the symbol ▥ …



② The menu field "Current mode of operation" assumes a dark background…

③ Select this menu field. The screen changes to the menu "Heating Mode of Operation". The current mode of operation is highlighted with ⊙ :



1 Symbol for program area "Heating" with menu title

2 Automatic

Heating circle works according to programmed time programs.

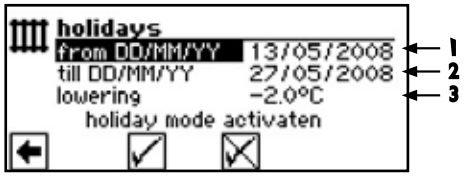
3 Party

Continuous heating boost. The settings for night mode are switched off *straightaway for the duration of 24 hours* or *until another mode of operation is selected.*

4 Holidays

Continuous heating reduction. The settings for day mode are switched off *straightaway until the set date is reached* or *until another mode of operation is selected.*

If the "Holidays" mode of operation is selected, the screen changes to the menu "End of holidays":



1 Menu field "Begin of holidays"
2 Menu field "End of holidays"
3 Menu field "Lowering temperature"
Change date:
Select and activate menu field "Begin of holidays"…
Set day / month / day…
Select and activate menu field "End of holidays"…
Set day / month / day…
Select and activate menu field "Lowering temperature"…
Set lowering…
Save settings or cancel.

5 2nd heat gen. Second heat generator

The programmed time programs control the heating, *without* switching on the heat pump.

6 Off

The heating is switched off (= summer mode), the antifreeze function is switched on (return setpoint = 15 °C; the heat pump starts operating if the return setpoint is fallen below)

④ Activate required mode of operation and select (it is marked with ⊙)…

⑤ Return to the menu "Information on Settings".

SETTING THE HOT WATER RETURN FLOW TEMPERATURE

NOTICE.
This menu performs the same function as the "Quickly changing the hot water return flow temperature" in the standard screen.

Proceed as follows:

① In the menu "Quick Setting: Heating" select and activate the menu line title "Temperature – >"…

② The menu field "Temperature Deviation" assumes a dark background…

Change hot water return flow temperature of the set heating curve by the required temperature (value range: ± 5 °C)…

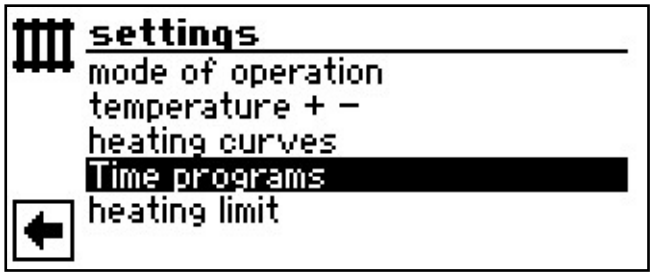
③ Finish entry by pressing the „rotary pushbutton". This saves the required temperature. The program automatically activates the symbol.

◉ SETTING THE TIME PROGRAMS OF THE HEATING CIRCLE

You can only select and activate the "Heating time progs" – ✳ or ☾ – if the mode of operation "Auto(matic)" is active.

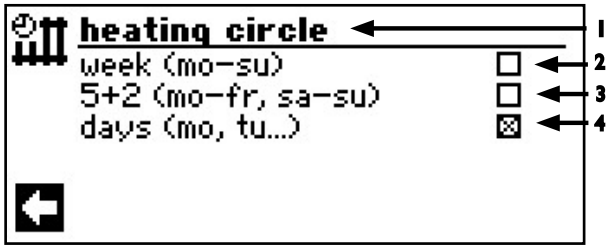
If you select the menu field "Settings", the screen will change either to the menu "Time progams" or directly to the menu "Heating circle" (depending on the system setting made by the authorised service technician):

Menu "Timer program"



NOTICE.
The time programs are programmed in the menus "All" and "Mixing circ 1" in the same way as the example described below "Heating circ".

Menu "Heating circle"



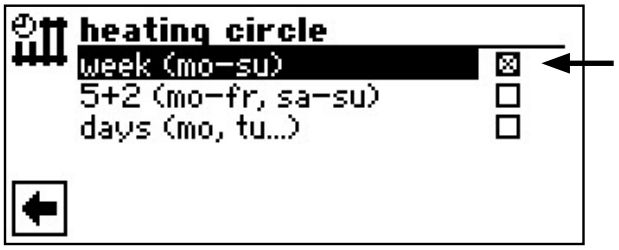
1 **Symbol for "Time programs heating" with menu title**
2 **Week (Mo – Su)**
Same times for all days of the week
3 **5 + 2 (Mo – Fr, Sa – Su)**
Different times during the week and on weekends
4 **Different times for each day**

SAME SWITCHING TIMES ON ALL DAYS OF THE WEEK

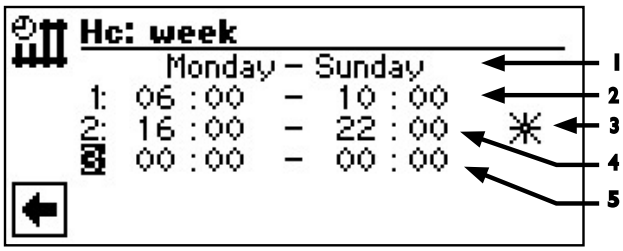
You can specify a maximum of three times periods within 24 hours at which the heating is to be raised. The specified time periods apply for every day of the week.

Proceed as follows:

① In the menu "Heating circle", select and activate the table line "Week (Mo – Su)"…



The screen changes to the menu „Hc:Week"…



1 **Menu subline "Monday – Sunday"**
The displayed time programs apply for every day of the week.

2 **Switching channel 1 with typical time period**
In the example shown, the heating is increased daily from 06:00 – 10:00 hours.

3 **Symbol for "Day mode"**
Indicates that the heating works in day mode at the specified time periods, i.e. it is increased.

4 **Switching channel 2 with typical time period**
In the example shown, the heating is increased daily from 16:00:00 – 22:00:00 hours.

5 **Switching channel 3 with typical time period**
Not specified in the example shown.

② Select and activate switching channel 1…

③ Set required time…

The heating is raised within the time period indicated (= day mode). The heating is also lowered at the remaining times (= night mode).

NOTICE.
With a time period of 00:00 – 00:00 the heating is generally lowered. It only works in night mode.

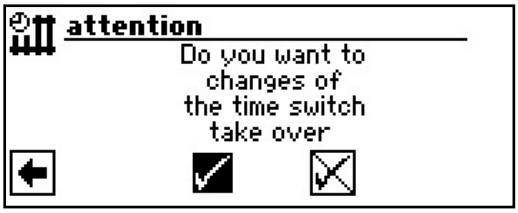
④ Finish entry in switching channel 1…

⑤ If the heating is to be raised during a further time period in the daytime, select and activate switching channel 2…

⑥ Set required time…

⑦ Settings made are saved by activating and selecting ☑ or cancelled by activating and selecting ☒.

Confirmation prompt



NOTICE.
If the settings have been saved, the time settings „Hc:Week“ overwrite existing time settings in „Hc: 5+2“ and „Hc: Days“. At the same time, the switching time control „Week (Mo – Su) is switched on and automatically marked by ☒ in the time programs submenu “Heating circle”.

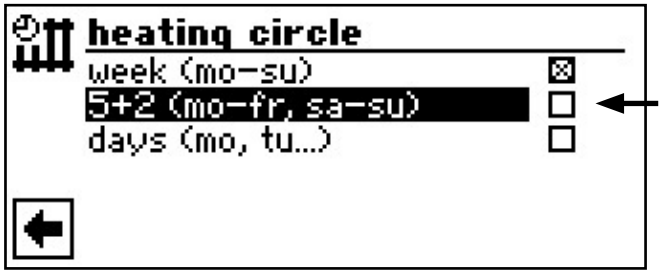
⑧ Acknowledge confirmation prompt. The screen returns to the previous menu.

DIFFERENT SWITCHING TIMES DURING THE WEEK AND ON WEEKENDS

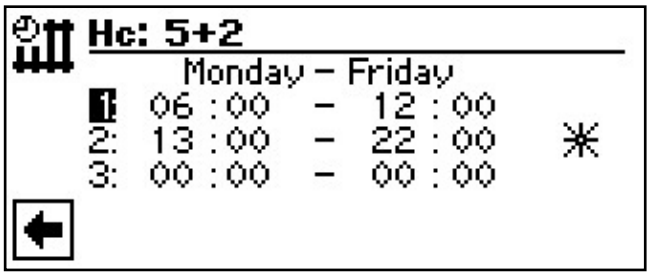
You can specify a maximum of three time periods at which the heating circle is to be raised for both day groups Monday – Friday and Saturday – Sunday (= Weekend).

Proceed as follows:

① In the menu “Heating circle”, select and activate the table line “5 + 2 (Mo – Fr, Sa – Su)”…



The screen changes to the menu “Hc: 5 + 2”…



② Follow the instructions ② – ⑥ in the section “Same switching times on all days of the week”…

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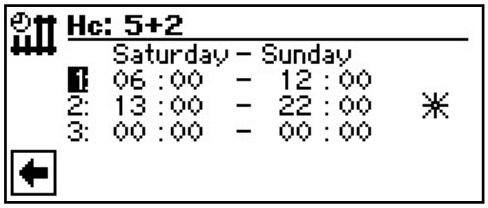
③ Call up the menu for “Saturday – Sunday” with the menu entries “Save settings” and “Cancel Settings” by scrolling through the screen…



④ Follow the instructions ② – ⑧ in the section “Same switching times on all days of the week”.

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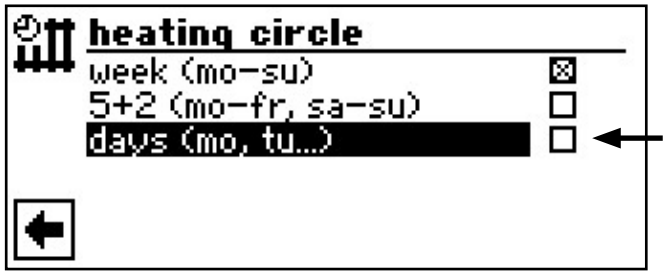
DIFFERENT SWITCHING TIMES FOR EACH DAY

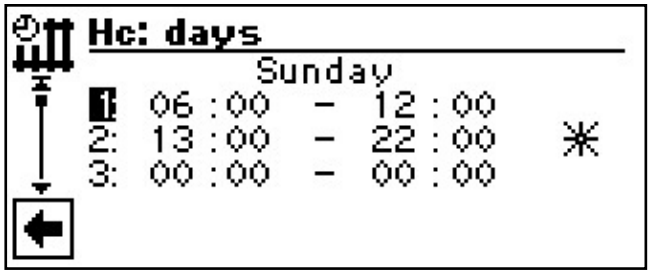
You can specify a maximum of three time periods for each day at which the heating is to be raised.

Proceed as follows:

① In the menu "Heating circle", select and activate the menu field "Days (Mo, Tue, …)"…



The screen changes to the menu "Hc: Days" and shows the switching times for Sunday…



② Follow the instructions ② – ⑥ in the section "Same switching times on all days of the week"…

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NOTICE.
If time programs have been programmed in the time programs "Week (Mo – Su)" or "5 + 2 (Mo – Fr, Sa – Su)" and you wish to diverge form this on (a) certain day(s), you can program the program times for this/these day(s) here correspondingly

③ The menus for other days are called up by scrolling through the screen. Follow the instructions ② – ⑥ in the section "Same switching times on all days of the week"…

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NOTICE.
The menu entries "Save settings" and "Cancel settings" appear in the screen "Saturday".

④ In the program times screen for Saturday, follow the instructions ② – ⑧ in the section "Same switching times on all days of the week".

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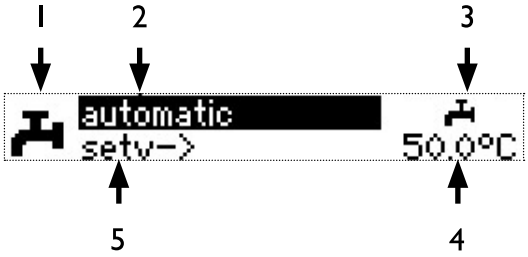
THE MENU "DOMESTIC HOT WATER"



1 Symbol for program area "Domestic Hot Water"

2 Menu field "Current mode of operation"

Possible displays:
Automatic
Party (=Continuous daytime operation)
Holidays
2 hg (=Second heat generator)
Off

3 Menu field "Off-times"

Displays the status of the domestic hot water preparation:

Domestic hot preparation enabled

Domestic hot water preparation stop

4 Menu field "Domestic hot water temperature"

Displays the required domestic hot water temperature (= setpoint value)

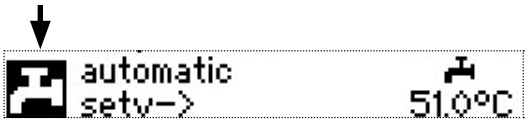
5 Menu line title "Setpoint value for domestic hot water temperature"

NOTICE.
Whether the menu field "Domestic hot water" and menu line title "Setpoint domestic hot water temperature" are displayed depends on the system setting.

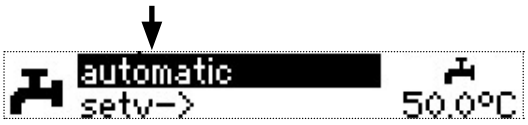
SETTING THE DOMESTIC HOT WATER MODE OF OPERATION

Proceed as follows:

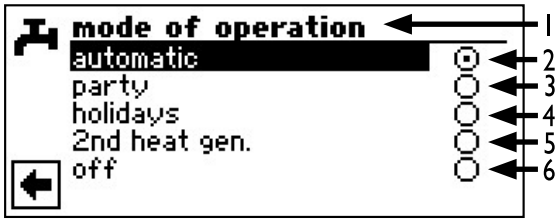
① In the navigation screen, select the symbol …



② The menu field for the current mode of operation assumes a dark background. Select this menu field…



③ The screen changes to the menu „Mode of operation“. The current mode of operation is highlighted with ⊙ :



1 Symbol for program area “Domestic hot water” and menu title.

2 Automatic
Domestic hot water preparation is *stopped* after the programmed program times.

3 Party
The domestic hot water preparation works in continuous mode *straightaway for the duration of 24 hours until another mode of operation is selected.*

4 Holidays
The domestic hot water preparation is stopped *straightaway until the set date is reached or until another mode of operation is selected.*

5 2nd heat gen.
The programmed program times control the domestic hot water preparation, *without* selecting the heat pump.

6 Off
Domestic hot water preparation is switched off.

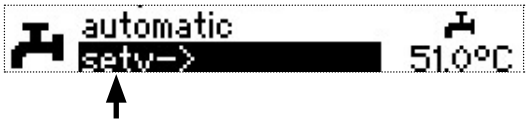
④ Select and activate the required mode of operation…

⑤ Return to the menu „Settings“.

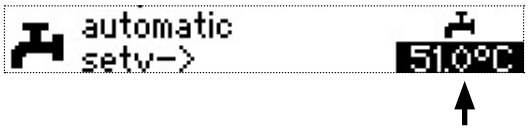
SETTING THE DOMESTIC HOT WATER TEMPERATURE

Proceed as follows:

① In the menu “Quick setting domestic hot water” select and activate the menu line title “Setv. – >”…



② The menu field “Domestic hot water” assumes a dark background…



Set the required domestic hot water temperature (= setpoint value)…

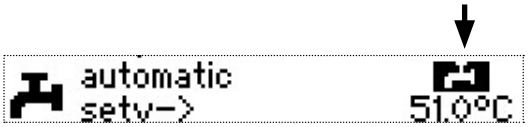
Minimum value: 30 °C.

NOTICE.
In conjunction with domestic hot water tanks recommended by the manufacturer, your heat pump can generate domestic hot water temperatures which are around 7 K lower than the maximum flow temperature of your heat pump.

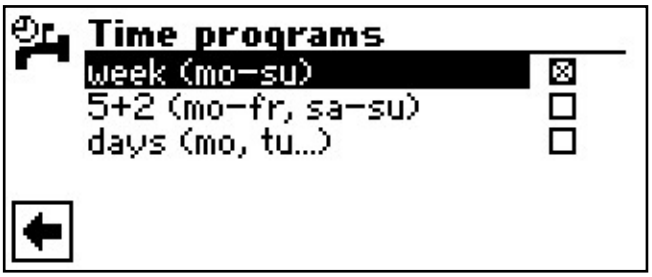
③ Terminate input. This saves the required temperature. The program automatically activates the symbol .

◉ SETTING THE DOMESTIC HOT WATER OFF-TIMES

You can only select and activate the "Off-times" – or – if the "Automatic" mode of operation is active.



If you select the "Off-times" menu field, the screen will change to the menu "Time programs":



The time programs for the domestic hot water are programmed as described in the section "Setting the time programs of the heating circle".

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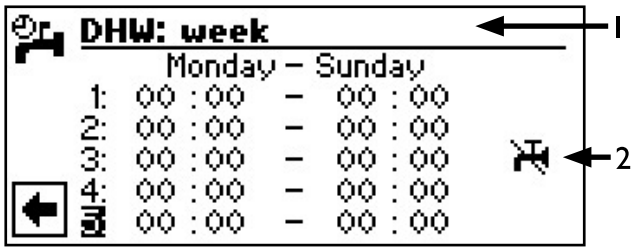
The symbols for "Time progams domestic hot water" and "Domestic hot water off" appear in the menus.This reminds you that you are in the program area "Time progams domestic hot water":



1 Symbol for "Time progams domestic hot water" with menu title

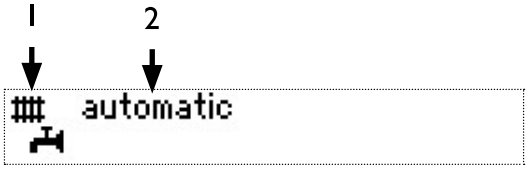
2 Symbol for "Domestic hot water"

NOTICE.

When programming, ensure that the time periods which you specify in the area "Time progams domestic hot water preparation" are off times. The domestic hot water preparation is switched off in the time periods entered.

THE MENU "COMPLETE SYSTEM"

The "Complete system" menu enables you to specify the mode of operation of your system *in one go uniformly for all areas* (heating, domestic hot water preparation, …).



1 Symbol for program area "Complete system"

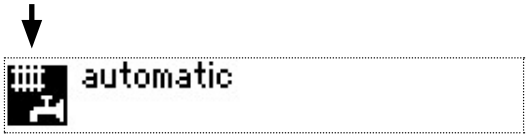
2 Menu field "Current mode of operation"

Possible displays: Auto(matic)
Off
Holidays
Party (=Continuous daytime operation)

A dotted line means that the individual areas of the system work in different modes of operation.

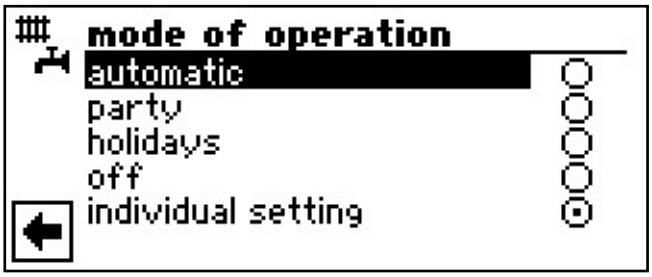
Proceed as follows if you wish to specify a common mode of operation for the individual areas of your system:

① In the navigation screen, select the symbol …



② The menu field "Current mode of operation" is automatically activated. Select the menu field…

③ The screen changes to the menu "Mode of Operation"…



You can now choose which mode of operation is to apply for all areas of your system. At the same time, the mode of operation "Holidays" requires a "Program end" to be programmed.

☞ Page 13, "Holidays" mode of operation

The mode of operation you select in the menu "Complete system" is automatically assigned to all individual areas of your system.

An example:
You wish to set the heating and domestic hot water preparation to continuous day mode for a short time owing to a party in your house. After the party, all areas of your system are to operate in automatic mode.

Proceed as follows:

① Select and activate the menu "Complete system"…

② The "Mode of operation" menu appears. Select and activate the menu field "Party"…

All areas of your system are automatically switched over to continuous day mode.

③ After the party has finished, select and activate the "Complete system" menu, then select and activate the menu field "Automatic" in the "Mode of operation" menu…

All areas of your system are switched over to the "Automatic" mode of operation and work as specified by the set time.

NOTICE.
If you want the individual areas of your system to work in different modes of operation (for example heating "Off", domestic hot water preparation "Automatic"), you have to select the menu field "Indiv. setting" (= individual setting). You can then see the required mode of operation via the menu of the relevant program area of your system (heating, domestic hot water, …).

Program area "Domestic hot water"

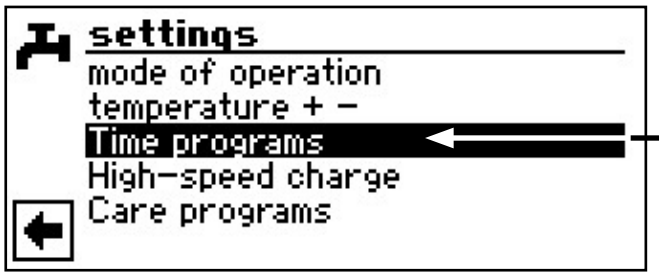
NOTICE.
If a domestic hot water temperature is set which cannot be attained, the heat pump will initially switch to "Error high pressure". This is followed by a self-resetting fault (If heating is required, this will also be operated). After 2 hours have passed, the domestic hot water preparation starts again. Nevertheless, the program of the heating and heat pump regulator automatically lowers the setpoint value for this by an initial 1 °C. If this setpoint temperature cannot be attained either, the process is repeated until a temperature can be attained.

The set desired value remains unaffected and is displayed unchanged.

TIME PROGRAM "DOMESTIC HOT WATER PREPARATION"

Proceed as follows:

① In the menu "Settings", select and activate the menu field "Time programs"…



② Follow the instructions in the section "Setting the time programs of the heating circle"…

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NOTICE.
When programming, ensure that the time periods which you specify in the area "Time progs" are o f f – t i m e s.

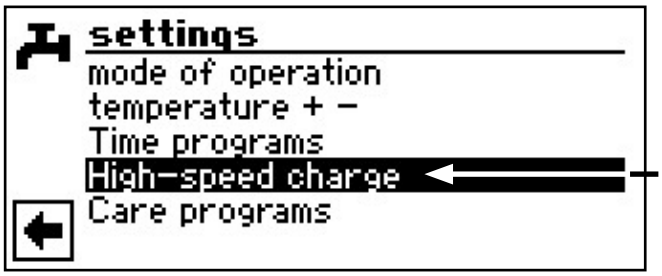
The domestic hot water preparation is switched off in the time periods entered.

HIGH-SPEED CHARGE

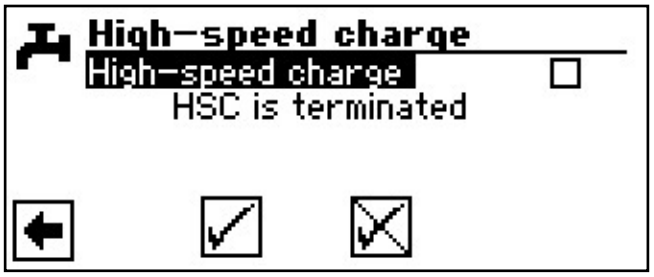
If you require domestic hot water despite active off-time(s), you can select a domestic hot water preparation and then terminate it again via the function "High-speed charge" by bypassing the programmed off-time(s).

Proceed as follows:

① In the menu "Domestic hot water settings", select and activate the menu field "High-speed charge"…



② The screen changes to the menu "High-speed charge": You will see the automatic status message of the program…



③ Select the menu field "High-speed charge". Cancel or save the settings. The screen reports the status "HSC starting" or "HSC active"…

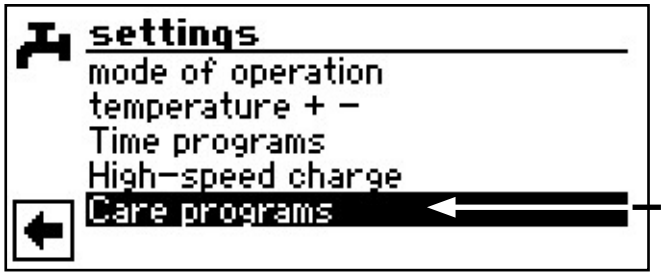
④ Return to the menu "Domestic hot water settings".

NOTICE.
The high-speed charging is terminated analogous via the menu field "Terminate HSC SW".

CARE PROGRAMS

Proceed as follows:

① In the menu "Domestic hot water settings", select and activate the menu field "Care programs"…

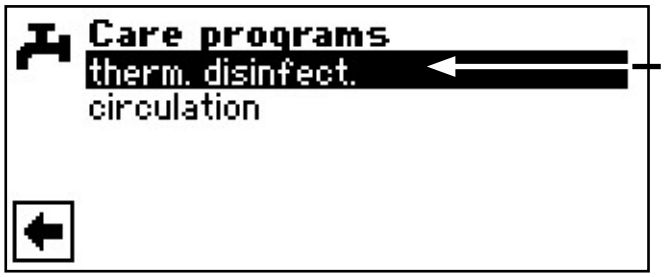


② The screen changes to the menu "Care progams"…

THERMAL DISINFECTION

Proceed as follows:

① In the menu "Care progams" select the menu field "Therm. Disinfect."…



NOTICE.
Display "Therm. Disinfect." will only appear if an additional heat generator for domestic hot water preparation has been enabled in the system settings.

② The screen changes to the menu "Therm. Disinfect."…

③ Select and activate day(s) on which a thermal disinfection is to occur…

NOTICE.
"Continuous op." means that a thermal disinfection will occur after each domestic hot water preparation. However, the domestic hot water charging always starts at the set hysteresis of the domestic hot water setpoint value.

NOTICE.
The thermal disinfection is always started at 0.00 hours on the selected day.

NOTICE.
The temperature for the thermal disinfection is set in the program area "Service".

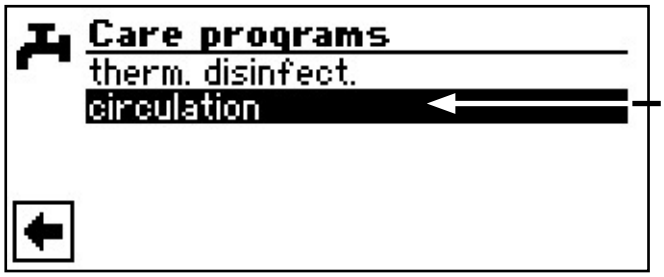
"System setting during commissioning" section in the operating manual intended for qualified technicians.

④ Save settings or cancel. Return to the menu "Care progams".

CIRCULATION

Proceed as follows:

① In the menu "Care progams", select the menu field "Circulation"…

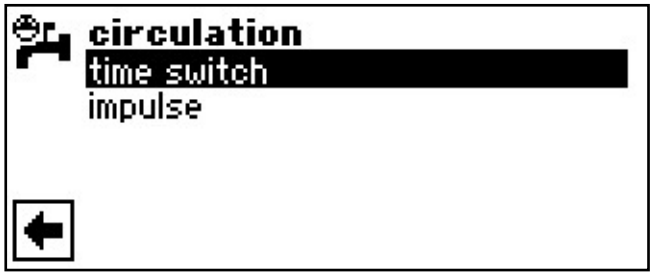


NOTICE.
The menu field will only appear if this is correspondingly defined in the program area "Service".

necessary setting: Hot water 2 = "CP"

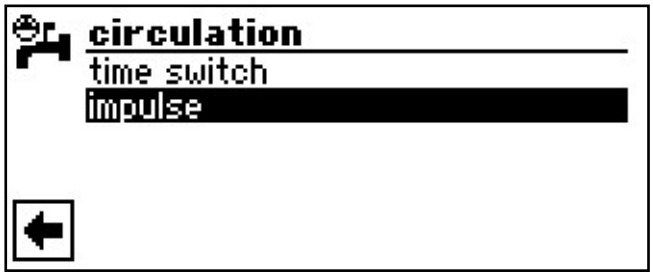
"System setting during commissioning" section in the operating manual intended for qualified technicians.

② The circulation pump can be configured by setting time programs and impulses.



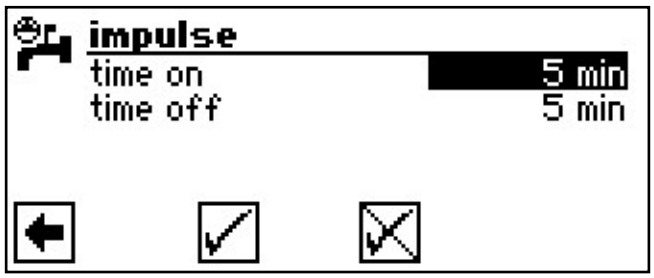
Use the time programs to specify the times during which the circulation pump is to run.

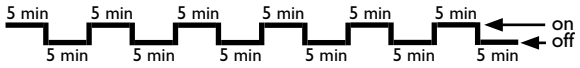
For the exact procedure used to set the times, please refer to **chapter Time switches**.



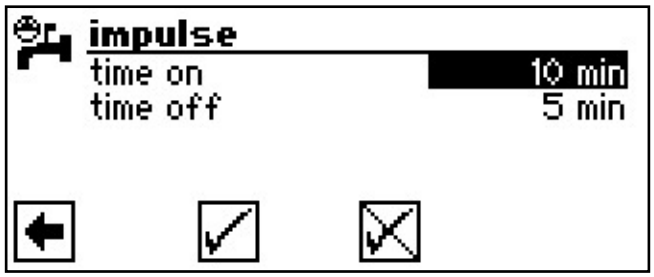
Under the time program item, you can decide how long the pump is to be switched on and off during the released time periods.

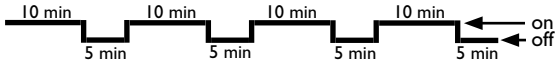
Example 1:





Example 2:





If the „Time off" setting is set to 0 minutes, the circulation pump will be switched on permanently during the released time periods.

Program area “Cooling”

CAUTION.
Only select the program area “Cooling” if a cooling circle mixer is connected in conjunction with a brine/water heat pump.

CAUTION.
If a cooling circle mixer is connected, it is imperative to select the program area “Cooling”, as otherwise malfunctions will occur in the mixer connected.

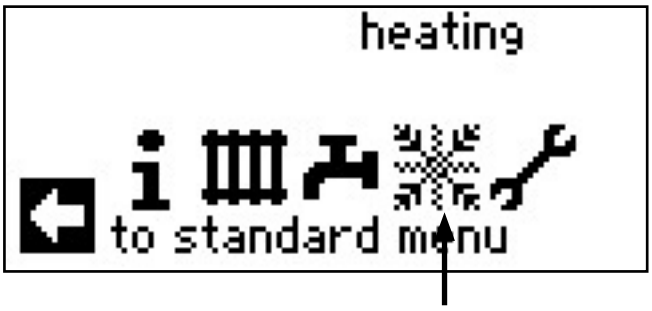
SELECT PROGRAM AREA

The program area “Cooling” must be set by authorised service personnel during commissioning.

necessary setting: Menu field “Mixing circ 1” = “Cool”

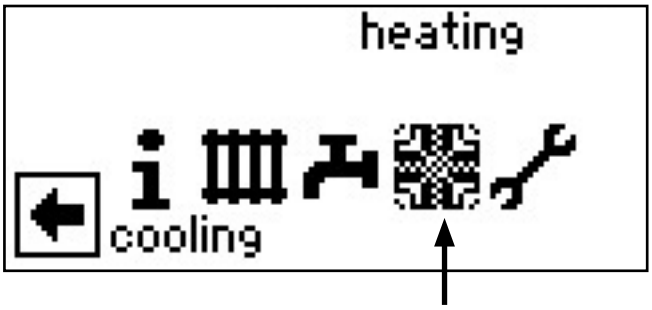
“System setting during commissioning” section in the operating manual intended for qualified technicians.

If the passive cooling function is set, the symbol for the program area “Cooling” will appear in the navigation screen:



Proceed as follows:

① In the navigation screen, select the symbol …

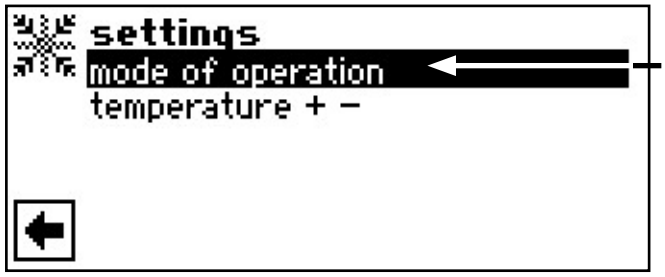


② The screen changes to the menu “Cooling Settings”.

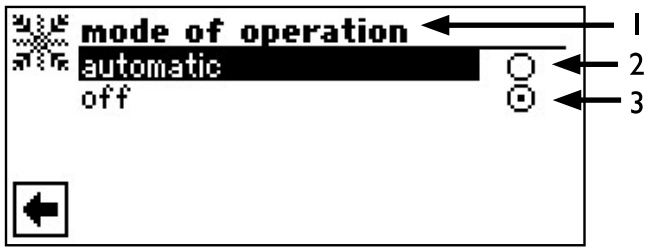
SETTING THE MODE OF OPERATION „COOLING“

Proceed as follows:

① In the menu “Cooling Settings”, select the menu field “Mode of operation”…



② The screen changes to the menu “Mode of operation”. Select desired operating mode…



1 **Symbol for program area “Cooling” with menu title**

2 **Automatic**
Switches the passive cooling function on independently of the external temperature release.

3 **Off**
Switches the passive cooling function off.

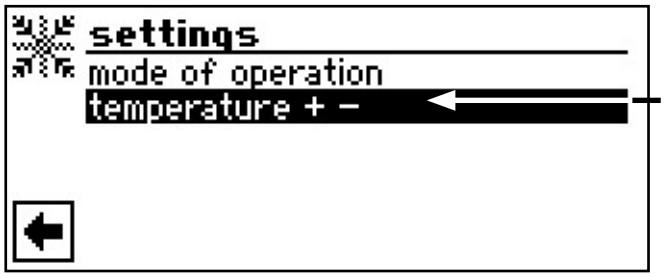
NOTICE.
If the passive cooling function has been switched on, the program of the heating and the heat pump regulator will automatically set the heating to the mode of operation “Off”.

The reverse applies:
If the heating has been switched on, the program of the heating and heat pump regulator will automatically set the passive cooling function to the mode of operation “Off”.

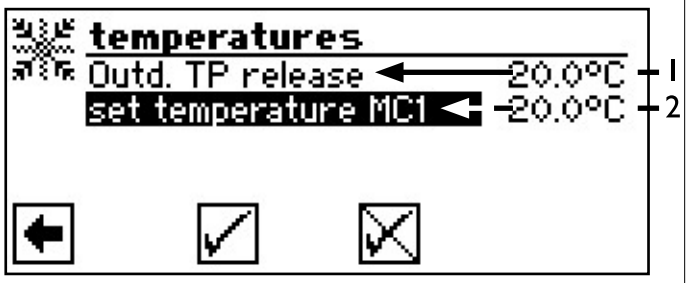
SETTING THE COOLING TEMPERATURE

Proceed as follows:

① In the menu "Cooling Settings", select and activate the menu field "Temperature + -"…



② The screen changes to the menu "Temperature + -".



1 Menu line "Outdoor Temperature release"

2 Menu item "Set temperature mixing circle 1" (= setpoint value)

③ Select the menu field "Set temperature MC1". The temperature input field automatically assumes a dark background…

④ Set required temperature…

NOTICE.
The setpoint value determines the control variable for the activated cooling mixer.

⑤ Finish entry…

⑥ Select and activate menu field "Outd. TP release". The temperature input field automatically assumes a dark background…

⑦ Set required external temperature…

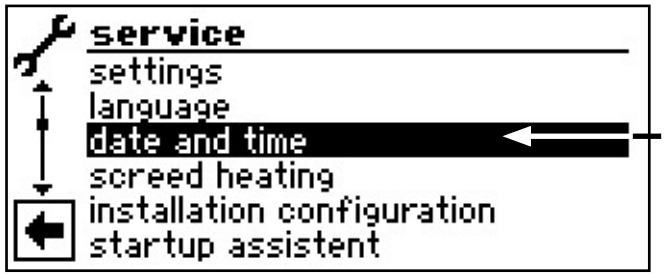
⑧ Terminate input. Save or cancel the settings…

⑨ Return to the menu "Cooling Settings"..

DETERMINING DATE AND TIME

Proceed as follows:

① In the menu "Service", select and activate the menu field "Date and Time"…



② The screen changes to the menu "Date and time"…

③ Select and activate entry field for day figures…

④ Set numbers for the current day…

⑤ Procedure ③ – ④ repeat in the same way in the entry fields for month, year, hour, minutes and seconds…

NOTICE.
You cannot change the name of the day. It is automatically generated and shown.

⑥ Save settings or cancel. Return to the menu "Service".