Operating Instructions

Hoval

UltraGas® 2 (125-1550)

Floor-standing gas condensing boiler

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1. Important notices

Dear customer,
With the UltraGas® 2, you have acquired a product manufactured according to the state-of-the-art and to the highest quality standards.

For the correct installation and operation of your UltraGas® 2, all applicable laws, regulations and standards must be complied with as well as the regulations of the responsible energy supply company. If you have any questions, please contact the installer of your heating system.

Assembly and installation of the heat generator are only allowed to be carried out by a trained gas appliance specialist from a licenced specialist company. Before commissioning, an installation inspection must be carried out and the heating system must be approved by the gas board.

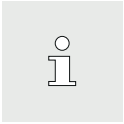
To guarantee safe and trouble-free operation, operate your heat generator in accordance with these operating instructions at all times.

The heat generator is only allowed to be used for its intended purpose and with fuels for which it was designed and which have been approved by Hoval.

Do not carry out any modifications to the unit, otherwise all claims under the warranty will be waived. Conversion kits must be installed and the installation approved by a Hoval customer service technician or a licenced gas appliance specialist.

Reliable and safe functioning of a heat generator, as well as the achievement of optimum efficiency and clean combustion are only possible and guaranteed if the unit is cleaned, serviced and checked at least once every year. Please note the instructions in the operating and installation instructions.

In the event of a fault or in the event of damage, please contact the Hoval customer service technician to inquire about the necessary repairs. In the meantime, shut down the unit to avoid any damage.



To shorten the duration of a service call, switch off the heat generator at least half an hour before the arrival of the Hoval customer service technician or the licenced gas appliance specialist.
Reason: The heat generator must have cooled down sufficiently before work can be carried out on the heat generator. If the heat generator is operating, there is a risk of burns from touching hot surfaces.

Provided it is used correctly, your heat generator will ensure you enjoy a well heated home for many years.

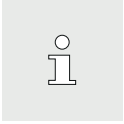
Hoval customer service
If you have any doubts with regard to the operation of your heat generator, or if faults affect its correct functioning, please contact a Hoval customer service technician. Our trained customer service technicians will be pleased to help you.

An optimally set heat generator can not only save you a lot of trouble, but also a lot of money.
Take advantage of the Hoval customer service offerings for regular maintenance, to prolong the service life and warranty period of your heat generator, and inquire about a service agreement with extended warranty. Your customer service consultant will be pleased to advise you!
You will find the addresses on the last page.

Please pay particular attention to the information in these operating instructions.

1.1 Approved fuels

UltraGas® 2 is approved for burning the following fuels:
- Natural gas E
- Natural gas E with a hydrogen content (H_2) of up to 20 %
- Natural gas LL
- Propane according to DIN 51622
- Biomethane according to EN 16723



In relation to natural gas G20 (100 % methane):
With a hydrogen content (H_2) of up to 20 % in accordance with DVGW ZP3100 (D), an output reduction of up to 7 % is possible.

1.2 Important addresses and telephone numbers

Gas appliance specialist:

_____

_____

Plumber:

_____

_____

Electrician:

_____

_____

Fuel supplier:

_____

_____

Chimney sweep:

_____

_____

1.3 System data

To be filled in by the gas appliance specialist!

Order No./serial number: _____

Heat generator type: _____

Calorifier type: _____

Electric heating element: _____ kW _____ V

Heating circuit pumps: _____

Mixing valve: _____

Calculated operating pressure (water pressure): min. _____ bar max. _____ bar

Room control module: ☐ yes ☐ no

Type of gas:

☐ natural gas E

☐ natural gas E with a hydrogen content (H_2) of up to 20 %

☐ propane

☐ biomethane

☐ _____

Neutralisation unit: ☐ yes ☐ no

Condensate pump: ☐ yes ☐ no

Outdoor temperature sensor: ☐ yes ☐ no

Room air temperature sensor: ☐ yes ☐ no

Combustion air supply: ☐ independent of room air ☐ room air dependent

Integrated room sensor activated: ☐ yes ☐ no

Number of heating circuits: ☐ 1 ☐ 2

☐ 3 ☐ _____

Allocation heating circuit DC: _____

Allocation heating circuit MC1: _____

Allocation heating circuit MC2: _____

Allocation heating circuit MC3: _____

Allocation heating circuit MC4: _____

Allocation heating curve value DC: _____

Allocation heating curve value MC1: _____

Allocation heating curve value MC2: _____

Allocation heating curve value MC3: _____

Allocation heating curve value MC4: _____

Switching time programs individually set: ☐ yes ☐ no

Legionella function activated: ☐ yes ☐ no

Remarks: _____

1.4 Calculation basis

Lowest design outdoor temperature: _____ °C

Heat output demand: _____ kW

Max. flow temperature: _____ °C

2. Safety

2.1 General safety instructions

Commissioning
Only put the heating system into operation if all relevant standards and safety regulations have been taken into account and the heating system has been installed by a gas appliance specialist.

Guarantee
The guarantee does not cover defects attributable to:
- Malfunctions and damage caused by installation in unsuitable rooms, e.g. hobby rooms, workshops, etc.
- Failure to follow the installation instructions
- Failure to comply with the operating instructions
- Incorrect installation
- Impermissible modifications
- Incorrect handling
- Contaminated operating media (fuel gas, heating water, combustion air)
- Unsuitable chemical additives to the heating water
- Damage caused by the application of force
- Corrosion by halogen compounds (e.g. paints, adhesives, solvents, cleansing agent)
- Corrosion caused by not observing the required water quality

Type of gas
- The heat generators are only allowed to be operated with the type of gas specified on the name plate.
- Gas quality:
  - The fuel gas must be technically free of vapour, dust and liquid.
  - The gas quality must comply with the following standards or worksheets:
    - Natural gas:
      - EN 16726
      - Worksheet:
        - DVGW G 260:2021-09 (Germany)
        - ÖVGW G B210:2021-06 (Austria)
        - SVGW G18:2021-11 (Switzerland)
    - Propane:
      - DIN 51622
    - Biomethane:
      - EN 16723

Behaviour in case of danger
Cut off the fuel supply (fuel gas) and electricity.

Disconnecting the electrical power supply
The heat generator can only be de-energised by disconnection from the mains (fuse). Even when the blocking switch is set to “0”, the heat generator is still live. Electric shocks can cause fatal injuries and lead to fires.

Behaviour if you smell gas
Danger of explosion if there is a fuel gas leak.
- Do not smoke
- No naked flames
- Avoid the occurrence of sparks
- Do not switch on the light or other electrical appliances
- Open windows and doors
- Switch off the heat generator and close the gas shut-off valve
- Leave the room
- Notify the specialist gas company/heating installation company
- Follow the safety regulations on the gas meter
- Follow the safety regulations of the specialist gas company

Behaviour if you smell flue gas
Leaking flue gas represents a risk of poisoning.
- Turn off the heating system
- Open windows and doors
- Leave the room
- Notify the heating installation company

Supply and extract air openings of the boiler room
Supply and extract air openings of the boiler room must not be closed. Danger of poisoning due to incomplete combustion if the supply air openings are closed.
Exception: Your heat generator is operated independent of room air – see chapter 1.3, page 6.

Initial commissioning/installation inspection
Initial commissioning of a newly installed heat generator is only allowed to be carried out by a Hoval customer service technician or a licenced gas appliance specialist. Danger of poisoning due to incorrect initial commissioning! A full installation inspection must be completed, see installation instructions.

Checking the operating pressure
Check the operating pressure (water pressure in the heating system during operation), as described in chapter 8.1, page 81.

Filling the heating system
The replacement water must be of the required quality. The quality requirements are stated in the installation instructions in the “Water quality in heating systems” chapter.

Maintenance, cleaning and inspection
The heat generator must be cleaned, serviced and checked by a Hoval customer service technician or a licenced gas appliance specialist once a year. An important precondition for economical operation and for maintaining good air quality is the sound technical condition of your heating system. For this purpose, an emission measurement must be carried out once a year.
Damage to the system can result from failure to perform cleaning and maintenance or incorrect cleaning and maintenance.
- Have the heating system inspected and cleaned once per year.
- If necessary, have the plant serviced.
- To avoid damage to the heating system, remedy faults immediately.

Decommissioning/frost protection
The heating system must be drained if there is a risk of frost; contact the heating specialist for advice if necessary.
Decommissioning must be carried out according to the “Decommissioning” chapter of the UltraGas® 2 installation instructions.

Corrosion protection
Do not use sprays, solvents, chlorine-based cleansing agents, paint, adhesives etc. in the proximity of the unit. Under certain circumstances, these substances can cause corrosion inside the heat generator and the flue gas system.

Keep the room clean
Keep the room in which the heat generator is installed clean at all times and turn off the burner before starting cleaning to avoid any faults due to dusty combustion air.

2.2 Intended use

- The UltraGas® 2 is exclusively intended for heating the heating water.
- The heat produced must be carried away by the heating water.
- All covers on the heat generator must be installed during operation.
- Only use the heat generator if in perfect technical condition, as well as according to the intended use, safely and with regard to potential dangers.
- The inspection and cleaning intervals stated in the documents must be complied with.
- Malfunctions that could impair safety must be rectified immediately.

The manufacturer/supplier will not accept any liability for any other use, or use beyond the scope of these definitions, and any resulting damage.

2.3 Explanation of the symbols

2.3.1 Warnings

DANGER
... indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING
... indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION
... indicates a possible hazardous situation which, if not avoided, could result in a minor or moderate injury.

NOTICE
... indicates a possible risk situation which, if not avoided, could result in property damage.

2.3.2 Warning symbols

The following warning symbols are combined with signal words CAUTION, WARNING and DANGER for the warning notes.


General warning symbols


Warning of electrical voltage


Warning of hot surface


Warning of potentially explosive substances


Warning of harmful or irritating substances

2.3.3 Information

Information:
Provides important information.

Provides important information. Refers to standards and directives.

Energy-saving tip:
Provides information about saving energy.

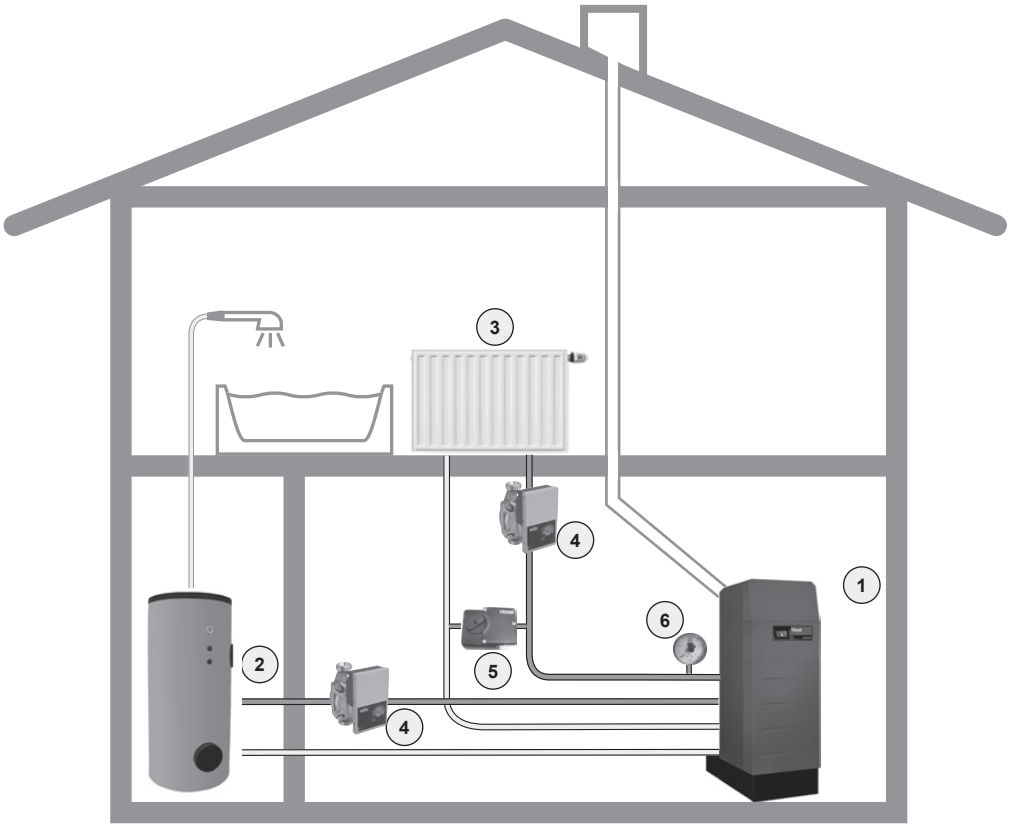
Provides important information about the ecological use of your Hoval system.

Recycling involves the reuse of waste products and/or their precursors as secondary raw materials.

3. Functional principle of the heating system

3.1 Structure of the heating system

Depending on the type of heating system selected, some of the components might be different from the presentation below. Get the gas appliance specialist to explain the heating system to you.



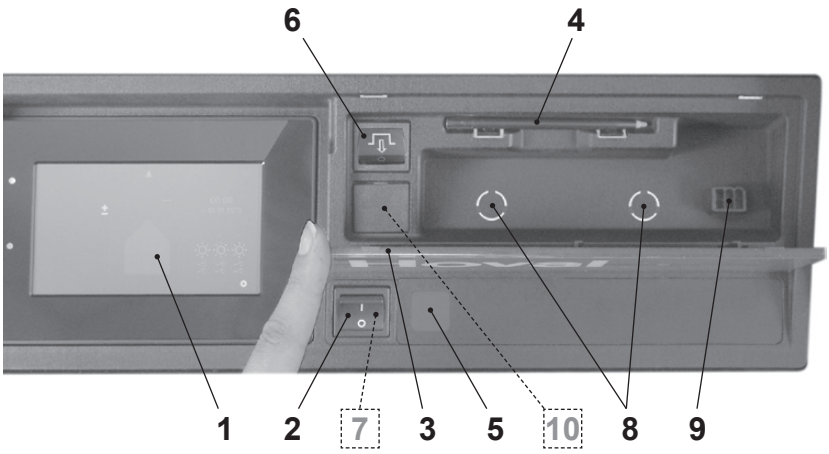
The heating water heated by the heat generator is supplied to the radiators or is used to heat up the hot water (calorifier).

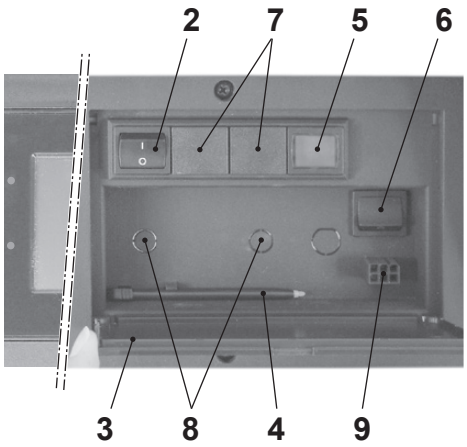
	Figure	Components	Function/description
1		Heat generator	Burns the permitted fuel gases safely and in an environmentally friendly manner. Extracts the heat from the flue gases produced during combustion and transfers it to the heating water.
		Fuel gas	The process of combustion within the heat generator converts the energy contained in the fuel gas into heat.
2		Calorifier	Holds a reserve of hot process water for household consumption (e.g. for showering).

		Control panel/Control module	Controls and monitors the operation of the heat generator. Maintains the desired room temperature optimally and fuel-efficiently, independent of the outdoor temperature.
3		Radiator, underfloor heating	Releases the heat of the heating water into the room.
4		Heating pump	Transports the heating water from the heat generator to the radiators and back into the heat generator, where it is reheated.
		Heating pipes	Transport the heat which is generated (heating water) from the heat generator to the radiators.
5		Mixing valve	Adjusts the heating flow temperature by mixing in colder heating return water (water flowing from the radiator) to maintain the desired room temperature, independent of the outdoor temperature.
6		Pressure gauge	Displays the operating pressure (water pressure) in the heating system.
		Air vent	Ensures that the heating pipes contain only heating water and no air.
		Safety valve	Prevents overpressure in the heating system.
		Diaphragm pressure expansion tank	Maintains the pressure in the heating system at a constant level and absorbs the expansion water.

4. Control panel on heat generator

4.1 Overview of control panel





No.	Designation	Function
1	**TopTronic® E control module**	Used as operator terminal for the plant that can be operated by touching with the finger or stylus (no. 4). For a detailed description of the elements, see chapter 6.6.1, page 21.
2	**Blocking switch**	1 = ON Heat generator in operation 0 = OFF Heat generator not in operation (plant live; no frost protection)
3	**Flap**	To protect the folding compartment with stylus (no. 4), reset button (no. 6) and service plug (no. 9). Safety temperature limiter optional (no. 8)
4	**Stylus**	Stylus for operating the control module
5	**Fault lamp**	Lights up if there is a heat generator fault.
6	**Reset button**	Used for resetting if the failure indication lamp lights up. The reset button is allowed to be pressed once at most. If the failure indication lamp continues to be lit, please contact Hoval Customer Service.

Optional:

7	**Bivalent switch** (optional)		Used for switching priority in plants with several heat generators or for other plant-specific switching functions.ww
8	**Additional safety temperature limiter** (optional)		Optional installation of an additional safety temperature limiter. Used for interrupting the heat generator if a set temperature is exceeded.
9	**Service plug**		Used exclusively by the service technician.

Only available for specific heat pumps:

10	**Mains isolator switch**		Below the reset button, there is a mains isolator switch with which the heat pump can be completely disconnected from the electrical power supply.

5. Commissioning

5.1 Initial commissioning

WARNING

Flue gas leak

If the initial commissioning is carried out incorrectly, flue gas can escape and there is a risk of poisoning.

- Initial commissioning of a newly installed heating system is only allowed to be carried out by a heating specialist/gas appliance specialist (only by trained specialist personnel or a Hoval customer service technician).
- A full installation inspection must be completed prior to start-up.

5.2 Putting into operation again

5.2.1 Checks prior to operation

1. Make sure that the combustion air supply to the heat generator is guaranteed.
2. Make sure that the shut-off valves in the flow and return are open.
3. Check the operating pressure (water pressure) in the heating system using a pressure gauge, see chapter 8.1, page 81.
   Nominal operating pressure:
   - UltraGas® 2 (125-1550): min. 1 bar, max. 6 bar
   - UltraGas® 2 H (700-1550): min. 1 bar, max. 10 bar
4. Check the setting of the basic program for the heating control.

5.2.2 Switching the heat generator on

1. Open the gas shut-off valve.
2. Turn on main switch (if fitted).
3. Set the blocking switch on the control panel to “I” in order to release the burner.
4. Set the heating control to the desired basic program and desired temperature.

WARNING

The heat generator is live when it has been connected to the mains.

6. Heating system control

6.1 Function of the TopTronic® E control

The TopTronic® E control module is used for controlling your heating system. Using the touch-sensitive screen (referred to below as touchscreen), you can make various settings on your system at the touch of a fingertip or using the stylus.

NOTICE

The surface of the TopTronic® E control module is not allowed to be touched with sharp or pointed objects for operation – risk of scratching.

The control module has the following functions:

- Maintaining the desired room temperature independent of the outside temperature
- Heating the living space only when required
- Producing hot water only when required
- Displaying information about the system

Further functions:

- Making it possible to set the desired temperatures and select a basic program (chapter 6.8, page 32)
- Turning the heat generator ON/OFF
- Monitoring temperatures

All the basic settings will have already been carried out by Hoval, or the heating engineer, during commissioning of the heating system. You can make further settings if you go on a journey or if your home is too cold or too warm. You can find an overview of the most frequently asked questions in chapter 6.3, page 17.

How to save energy!

For your benefit and for the environment

Using energy more efficiently by avoiding unnecessary losses! With little effort, you can optimise the operation of your heating system and save energy at the same time.

It is worth setting your personal day and week programs

You can save valuable energy and money by specifically adjusting the heating times with a personal day or week program to take account of the times when you will be present and absent. The TopTronic® E control makes it very simple to set different switching cycles for individual daily sequences (chapter 6.9, page 35).

6.2 Operating and display elements

The graphical displays on the control module can be operating or display elements.

If the TopTronic® E control module is in sleep mode, it can be “woken up” by touching the touchscreen. Sleep mode and the duration until the mode starts can be adjusted (chapter 6.12.13, page 74, nos. 3 and 4).

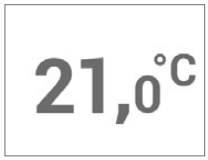
Operating elements

Operating elements are understood to be the buttons on the control module that can be selected by touching in order to adjust various settings. The operating elements are shown in white on a black background or in black on a white background. Values that can be changed with plus (+) or minus (−) can be touched directly. As a result, a keypad appears on the control module which helps you to make the entry.

Display elements

Display elements only provide information and cannot be selected. They are shown in colour.

Room temperature – coloured marking



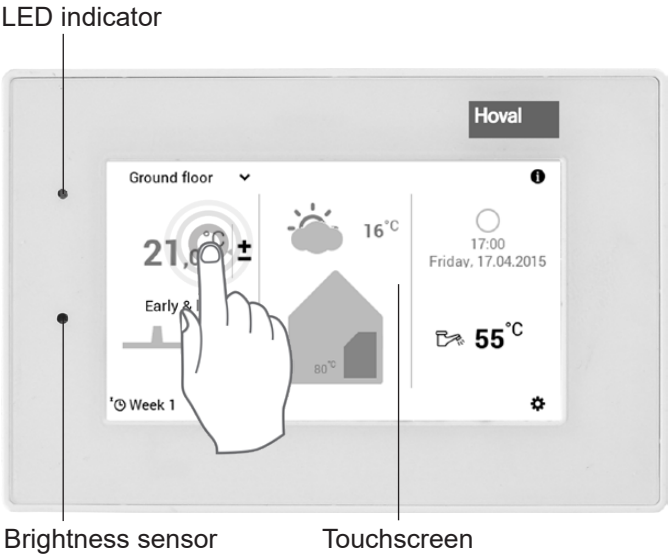
The room temperature on the start screen is shown in three different colours. The colours have the following meaning:

Colour	Meaning
Orange	**Heating** Heating operation active. The room is heated to the desired room temperature.
Blue	**Cooling (optional: for heat pumps only)** Cooling operation active. The room is cooled to the desired room temperature.
Grey	**Inactive** Heating/cooling operation inactive.

LED operating status

An LED indicator is additionally attached on the left of the control module. This displays the operating status and can light up in the following three colours:

Colour	Meaning
Green	**Correct operation** General information or warnings may be displayed on the control module. You as the customer do not need to do anything, however! Heating operation is continued.
Orange	**Blocking** The heat generator has been temporarily blocked because of an error. Contact Hoval customer service if the blocking leads to inadvertent cooling down of the heating system.
Red	**Locking** The heat generator sent a critical error and has been locked for safety reasons. The heat generator cannot continue to operate. Contact Hoval customer service!



6.3 What to do if...

The following information can be used as a first level support in frequently occurring situations.

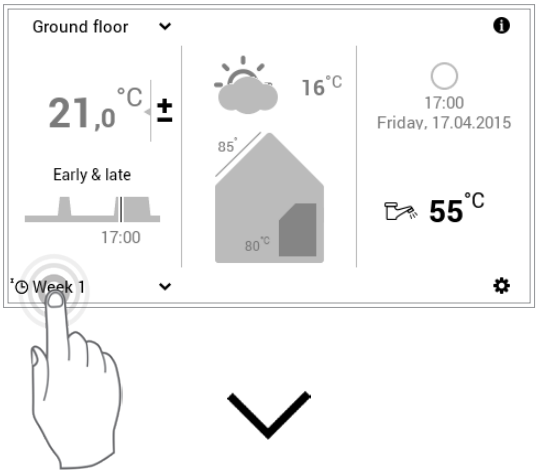
Observation	Remedy	Chapter / page
It is too cold.	Select **Room temperature** on the start screen and press the **plus** (+) button to increase the room temperature.	6.7.1, page 25
It is too warm.	Select **Room temperature** on the start screen and press the **minus** (−) button to reduce the room temperature.	6.7.1, page 25
From now on, equal day and night temperatures should be maintained continuously.	Select **Basic programs** on the start screen and choose the **Constant** basic program. Set the desired room temperature.	6.7.4, page 27
This evening, the heating should remain on for longer.	Select **Day programs** on the start screen. Under “Select day program”, set **Party** and enter the duration and room temperature.	6.10.3, page 46
A larger amount of hot water is required.	Select **DHW temperature** (tap icon) on the start screen and press the **plus** (+) button to increase the water temperature. If necessary, recharge domestic hot water (“Recharging”). You can also access the function for setting the water temperature using **Main menu** (⚙) **> Hot water**.	6.7.2, page 26 / 6.11.7, page 59
From now on, hot water but no heating is required.	Set **Heating circ.** to **Standby basic program** and **Hot water** to the required **basic program**. Heating operation OFF, hot water ON.	6.7.4, page 27
Suddenly, there is no heating or hot water; it is cold.	Check the control module for **alarm messages** and consult a heating engineer, if necessary. Check if there is still sufficient fuel/Electricity available, if necessary.	Alarm messages chapter
I will be absent for several hours during the day today.	Select **Day programs** (e.g. all day) on the start screen. Under “Select day program”, set another **day program** or **Absent** (enter the duration and room temperature).	6.7.5, page 28 / 6.10.3, page 46
I am travelling for a certain period of time (e.g. two weeks).	Select **Basic programs** on the start screen and choose the **Holiday** basic program. Set return date minus at least 1 day.	6.8.2, page 33
I am going away for an indefinite period of time.	Select **Basic programs** on the start screen and choose the **Standby** basic program. Change the basic program when you return.	6.7.4, page 27
In summer, it is too cold or too warm.	The basic program enables you to tell which operating mode is active. Adapt the required **basic program** as you need to.	6.7.4, page 27

6.4 Efficient control of the system

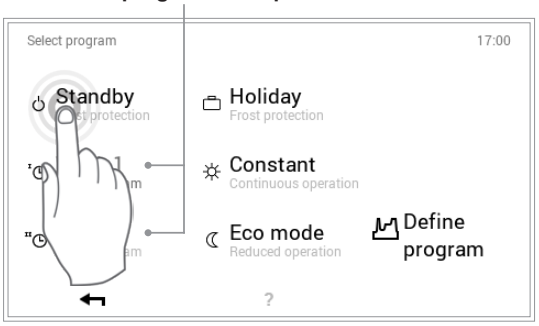
You can save a lot of energy by efficient adjustment of the heating operation. The TopTronic® E control module provides basic programs (6.8, page 32) that help you to control your system easily and specifically when you are present and absent over a fairly long period of time.

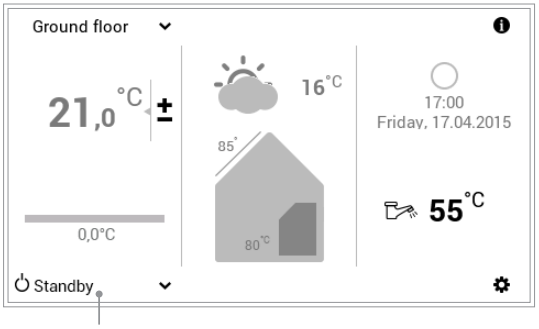
For short-term changes to the heating times, you can use various day programs in the Week 1 and Week 2 basic programs (6.10, page 44). Furthermore, the living area temperature can be increased or reduced effortlessly by selecting the current room temperature.

Basic programs



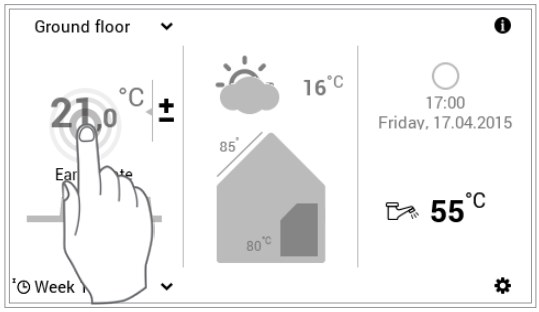
See “Week programs” chapter





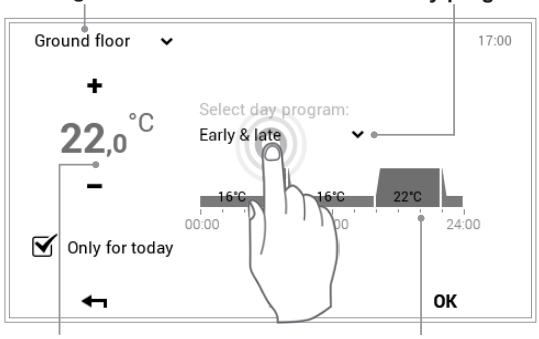
New active basic program

Room temperature / day programs



Heating circuit

Active day program

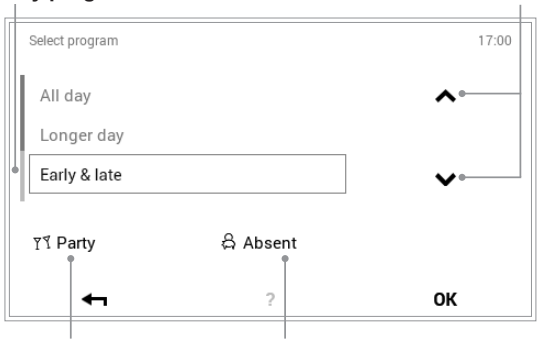


Desired room temperature

Switching cycle

Active day program

Day program selection

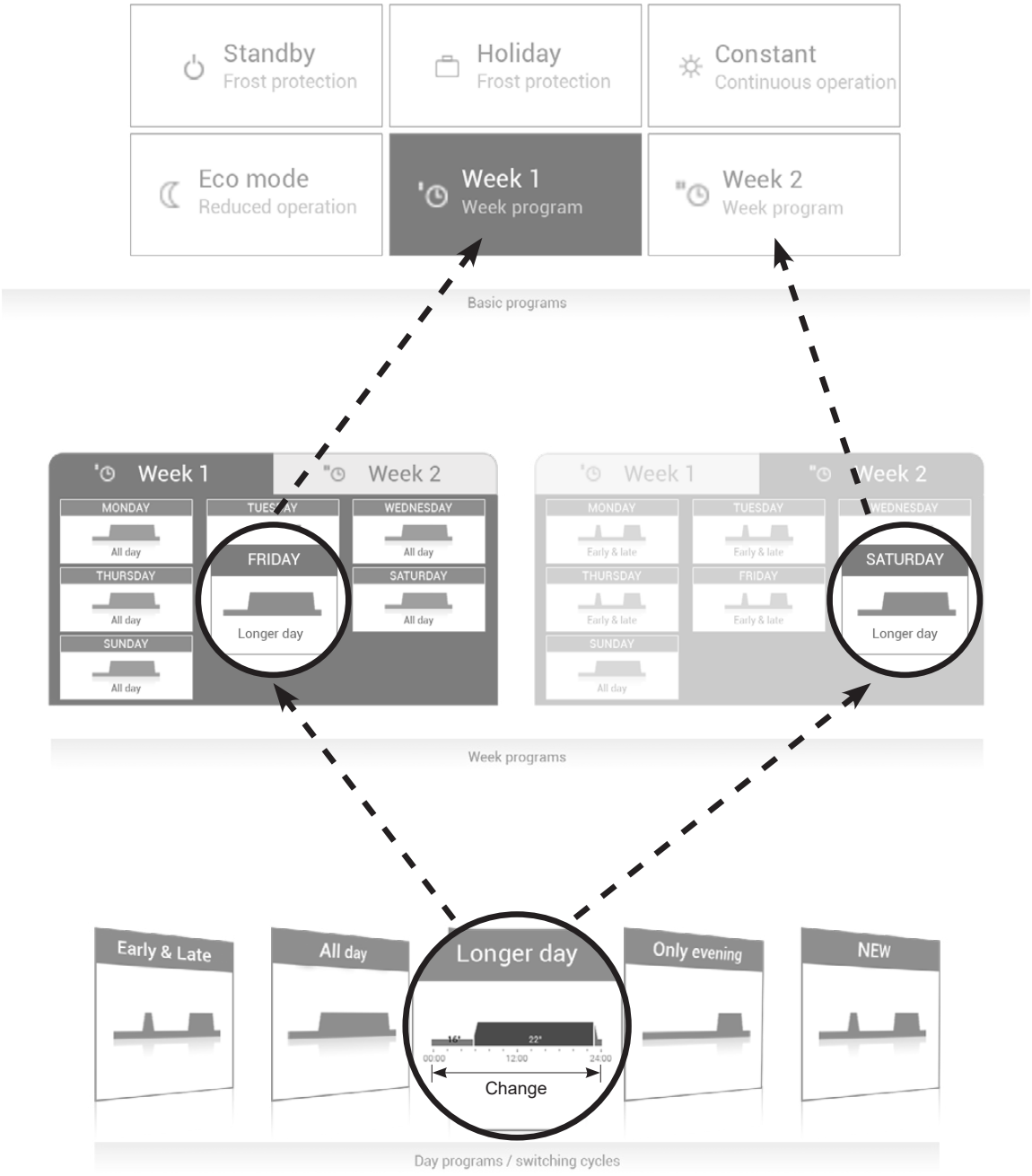


Day program “Party”

Day program “Absent”

6.5 Individual day and week programs

To save you the trouble of selecting the required basic program every day, the control module of the TopTronic® E offers you the opportunity of using week programs. In the two basic programs that can be selected, you can plan your individual week sequences and assign day programs (6.10, page 44) to adapt the heating times to your presence and absence using switching cycles. In the basic settings, the control module already contains the two standard week programs, Week 1 and Week 2 (6.8, page 32). You can edit the two week programs individually (6.9.4, page 38) and give them any name (6.9.5, page 40).



6.6 Start screen

The start screen of the control module is divided into three vertical display elements. For a detailed list of the various start screen functions, refer to 6.6.1, page 21.

NOTICE

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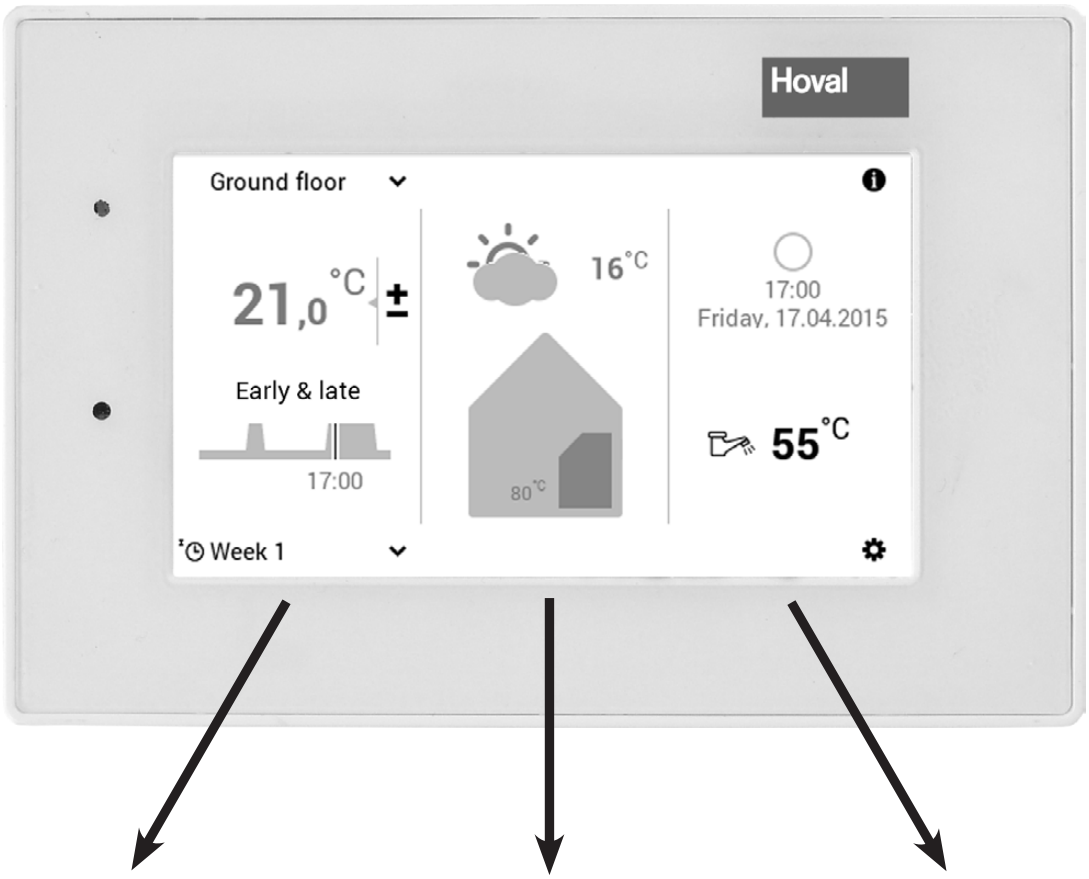
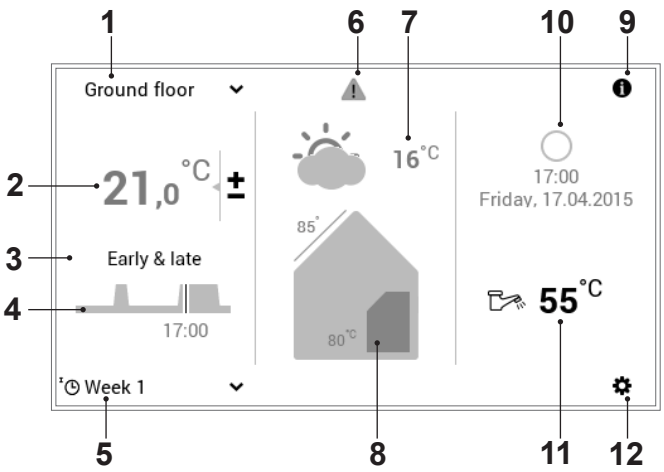


Information living area	Information heat generator	Information general
The left third of the start screen contains information about the living area. Here, you can make settings for the heating circuit, current room temperature, day program and switching cycles as well as basic program (chapter 6.4, page 18).	The middle third of the start screen contains information about the heat generator. This information area displays the error status, the outside temperature as well as information about the heating circuit. In addition, the user level (referred to below as authorisation level) can be displayed.	The right third of the start screen contains general information. Information about energy consumption, time/date as well as domestic hot water temperature. In connection with the TopTronic® E online, the weather forecast is displayed on the control module as an option.

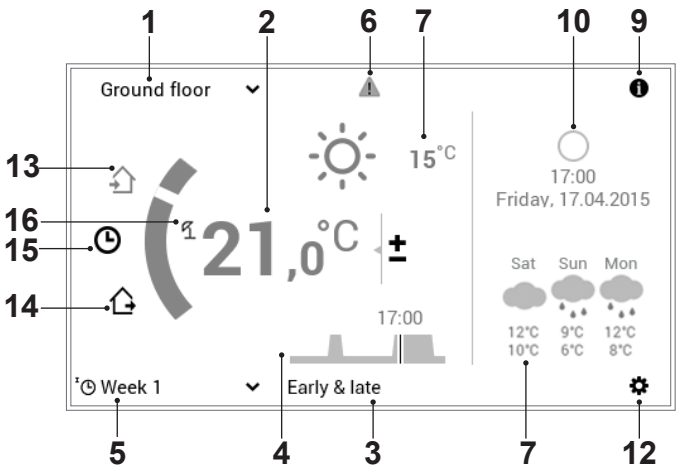
The display of the start screen is a standard view. The operating elements can be adapted by the user. Please check the start screen settings in 6.13.3, page 76 if the display if different.

6.6.1 Elements of the start screen heat generator and living area

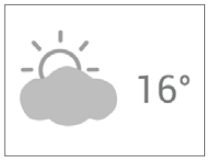
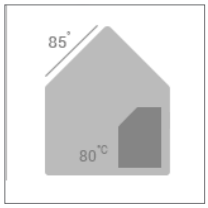
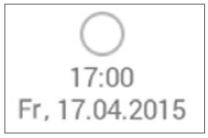
Heat generator



Living area



Position / symbol		Designation	Function	Chapter / page
1	Ground floor	**Heating circuit**	If a house is divided into individual heating areas, the heating circuit refers to each individually adjustable portion. Each heating circuit can have individual settings assigned to it, such as basic program, day and week program as well as room temperature. If no name is shown, then there is only one heating circuit.	6.7.3, page 27
	Ground floor	**Operation heating circuits**	Display of the joint or individual operation of all heating and domestic hot water circuits. Ground floor — Individual operation of every individual heating circuit Ground floor — Joint operation of all heating circuits (temperature and programs identical)	
2	21,0 °C ±	**Room temperature**	Displaying the current room temperature – in room control modules and systems with room air sensor – in the selected heating circuit. Adaptation of the temperature by increasing or reducing the preset temperature (6.7.1, page 25). Display of the required room temperature in systems without room air sensor.	6.7.1, page 25
3	Early & late	**Active day program**	Currently active day program. Only displayed if the basic programs **Week 1** and **Week 2** (6.8, page 32) are selected.	6.7.5, page 28
4	17:00	**Switching cycle**	The diagram shows the course of the day (room temperature vertical, time horizontal) of the active basic program or the assigned day program. The vertical line represents the current status.	6.10.5, page 49
5	Week 1	**Basic program**	Assignment of the basic program for the particular situation (e.g. week programs, Constant, Holiday). The basic program is used as the operating mode of the heating circuit.	6.7.4, page 27

6	Information	**Operating status**	Currently active operating status	7.1, page 77
			No display – correct operation	
		Alarm message display	Warning: Selection and display of alarm messages	
			Information for the technician: Display authorisation level. If no level is displayed, the control is in level 0 - your operating level.	
7		**Outside temperature**	Display of the current outside temperature (only displayed if there is a outdoor temperature sensor). In addition, the phase of the moon is displayed at night. In connection with the TopTronic® E online, the current weather is displayed.	
8		**Information active heat generator**	Displays the current temperature in the active heat generator. If a solar plant is installed, the collector temperature is also displayed. If the heat generator/solar plant is currently active, this is indicated by an orange colour.	
9		**Information**	Detailed information about the system	6.7.7, page 31
10		**Phase of the moon, time and date**	Display of the current time and date. In connection with the TopTronic® E online, the current phase of the moon is displayed.	
11		**Hot water**	Shows the current domestic hot water temperature if necessary.	6.11, page 55
12		**Main menu**	This operating element accesses the main menu.	6.12.1, page 62
13		**Day program**	Heating takes place immediately, the «Party» program is activated.	6.10, page 44
14		**Present**	Used for quickly switching over if you will be absent for a few hours.	6.10.3, page 46
15		**Week program**	Back to the week program	6.7.4, page 27
16		**Special symbols**	= summer mode = frost protection when pump on = screed drying	

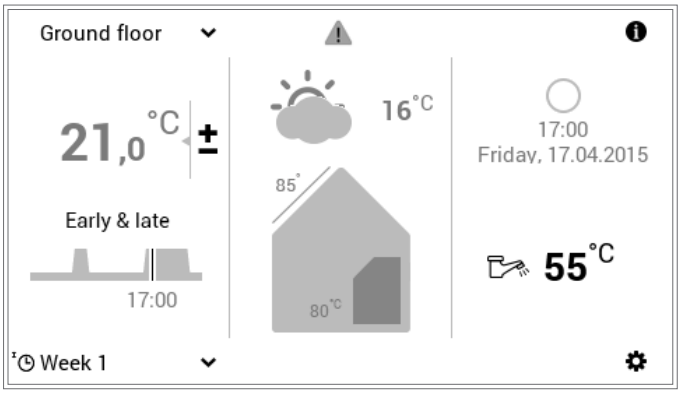
The display of the start screen is a standard view. The operating elements can be adapted by the user. Please check the start screen settings in 6.13.3, page 76 if the display if different.

6.6.2 Optional start screen

The TopTronic® E control module includes five different displays of the start screen. Depending on the individual requirement, the required start screen can be defined during commissioning and set by the heating specialist.

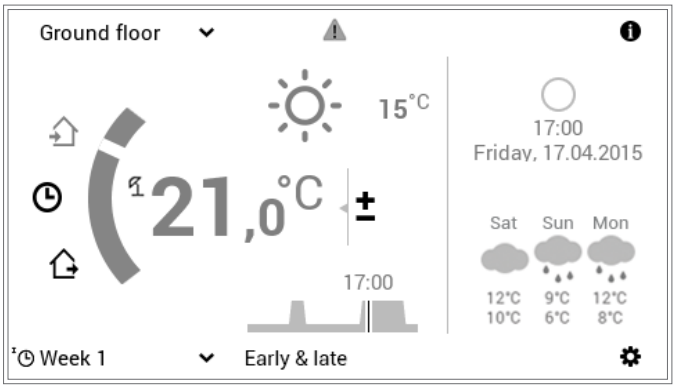
A subsequent changeover to one of the variants described below can only be made by the heating specialist.

Start screen Heat generator



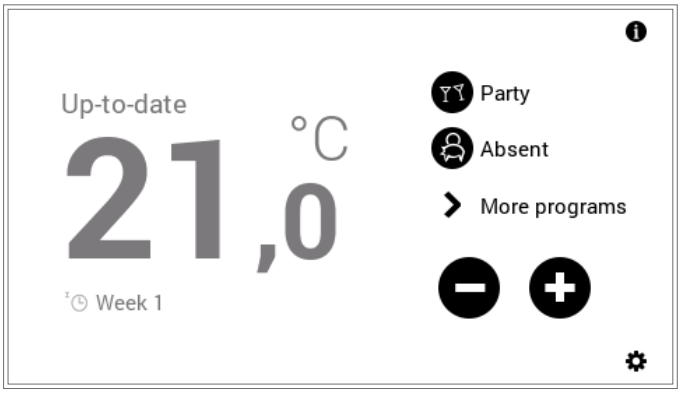
The heat generator screen shows detailed information about the heat generator. In connection with the TopTronic® E online, the weather forecast and the current phase of the moon are displayed.

Start screen Living comfort (option)



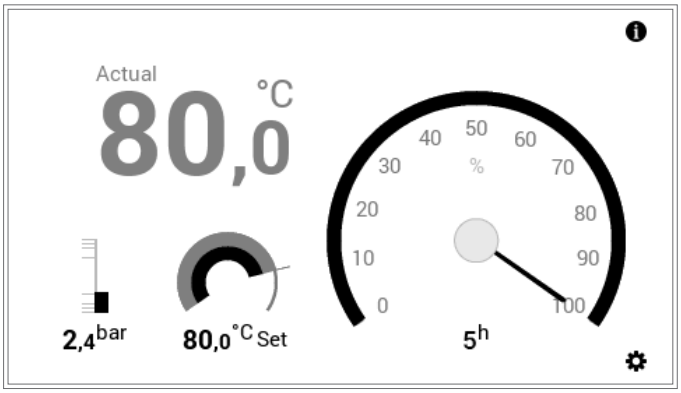
In contrast to the heat generator start screen, the “Living comfort” start screen focuses on quickly switching over between day programs (chapter 6.10, page 44) as well as absence (chapter 6.10.3, page 46). The information about heat generators is shown with a smaller size. In connection with the TopTronic® E online, the weather forecast and the current phase of the moon can also be displayed.

Start screen Living easy (option)



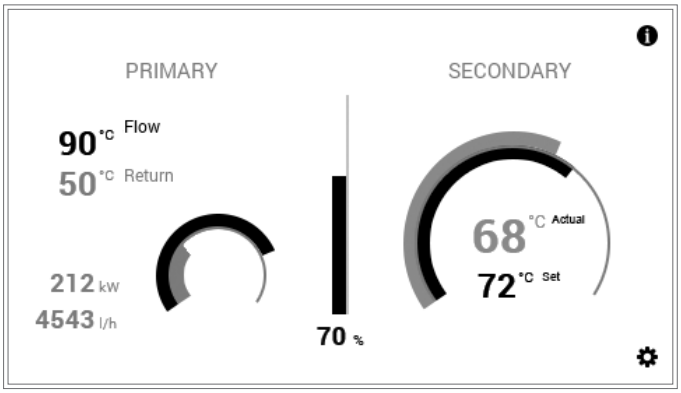
Please refer to the separate operating instructions for the room control module easy.

Start screen Industrial (option)



The start screen “Industrial” is usually used in large plants. As a result, only the current heat generator temperature, the water pressure (optional), the desired heat generator temperature, the operating hours and the output are displayed.

Start screen District heating (option)



The current position of the primary valve in %, the temperature deviation between desired and current temperature in the graph and, optionally, the current absolute power are displayed.

Overview of control elements

- Selection heating circuit
- Selection joint operation

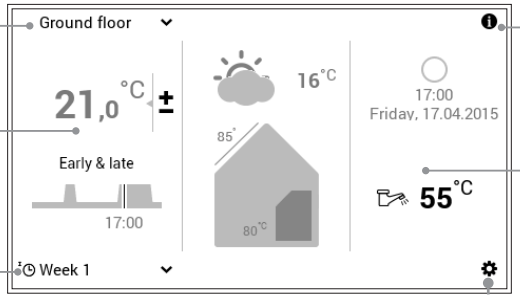
active heating circuit

- Room temperature setting
- Day program selection
- Display active switching cycles

Room temperature/ day program

- Basic program selection

Basic program



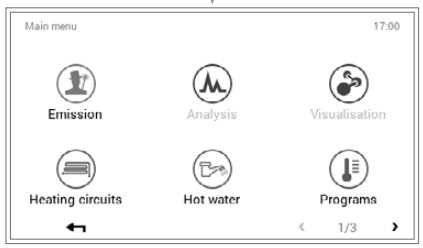
Information

- Information area selection
- Detailed selection heat generator, heating circuit, hot water
- Information area

Hot water

- Desired HW temperature
- Basic program selection
- Day program selection
- Switching cycles hot water

Main menu



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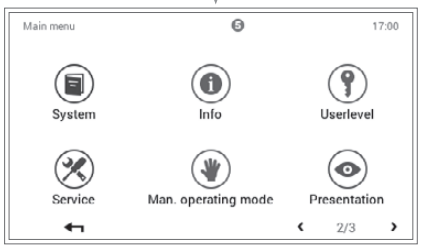
Emission	-	Selection heat generator
	-	Remaining run time
	-	Output limitation
	-	Information area
Analysis	-	Selection heat generator, heating circuit, hot water
	-	Selection duration
	-	Diagram display
Visualisation	-	For solar collector systems
Heating circuits	-	Desired room temperature
	-	Basic program selection
	-	Day program selection
	-	Switching cycles room temperature
Hot water	-	Desired HW temperature
	-	Basic program selection
	-	Day program selection
	-	Switching cycles hot water
Programs	-	Selection heating circuit/hot water
	-	Detailed selection heating circuit/ hot water
	-	Adapting week programs
	-	Adapting day programs



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System		Display of the next due maintenance/ cleaning/service
Info	-	Information area selection
	-	Detailed selection heat generator, heating circuit, hot water, solar, etc.
	-	Information area
User level	-	User level PIN entry
Service		Menu item only for heating specialist
Manual mode	-	Selection heat generator/heating circuit
	-	Detailed selection
	-	Cooling operation/OFF/heating operation
	-	Information
Presentation	-	Language
	-	Colour scheme
	-	Start screen
	-	Backlighting
	-	Duration until standby
	-	Display until standby
	-	Authorisation
	-	Configuration analysis

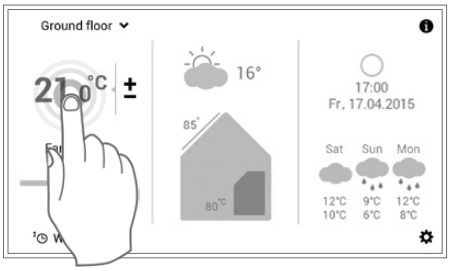
Page 3/3

Commissioning	Menu item only for heating specialist
Update	Menu item only for heating specialist
Power station	Influence of weather forecast on the heating. The function is only active with remote connection.

Functions might not be available for selection, depending on the version of your operating element.

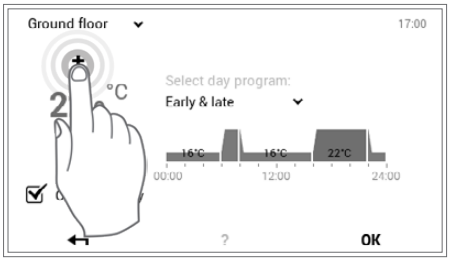
6.7 Main settings

6.7.1 Changing the room temperature

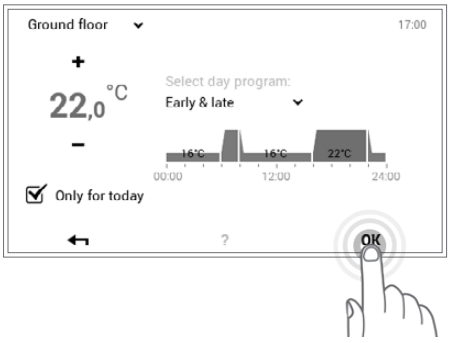


1 Touch the displayed room temperature to select it.

If there are several heating circuits, make sure that the correct heating circuit is displayed (example: ground floor). See “Selecting heating circuit” in chapter 6.7.3, page 27.



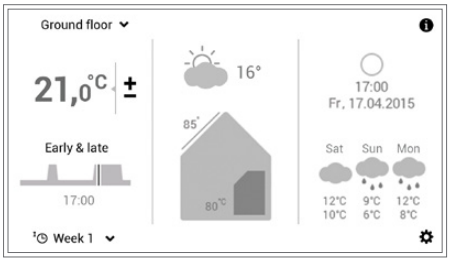
2 Touch the **plus** (**+**) or **minus** (**−**) button several times to set the required room temperature.



3 Accept the settings with **OK**.

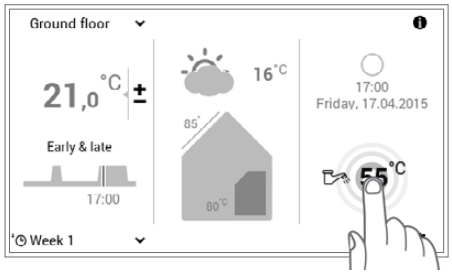
The room temperature is only accepted in the active day program up to the end of the current cycle. Deactivate the checkbox for **“Only for today”** to store the change in the active day program.

4 A change message is displayed. Confirm this with **OK**. Touch the **Back** (⮌) button if you want to edit the settings again.



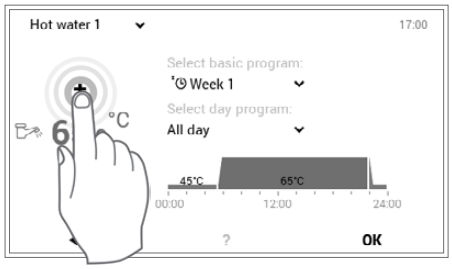
5 The current room temperature is displayed on the start screen and goes up or down until the desired room temperature is reached.

6.7.2 Adapt hot water temperature



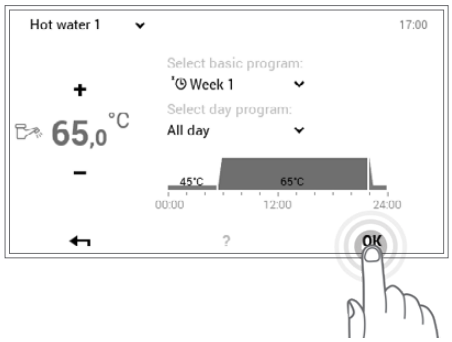
1 Touch the displayed **water temperature** to select it.

You can also access the function for setting the required water temperature using **Main menu** (⚙) > **Hot water** (6.12.1, page 62, no. 5).



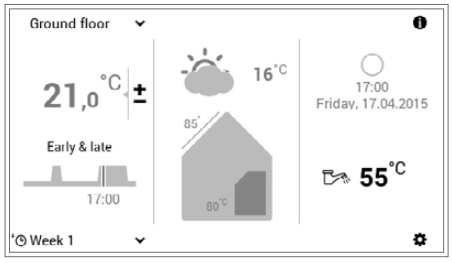
2 Touch the **plus** (+) or **minus** (−) button several times to set the required water temperature.

When a day program is active, the hot water temperature is only accepted in the active switching cycle.



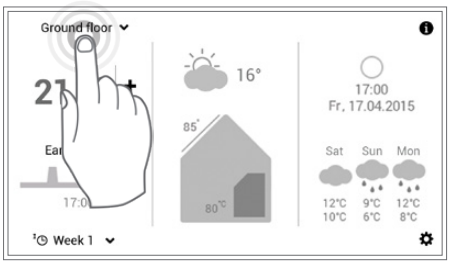
3 Accept the settings with **OK**.

4 A change message is displayed. Confirm this with **OK**. Touch the Back (↩) button if you want to edit the settings again.



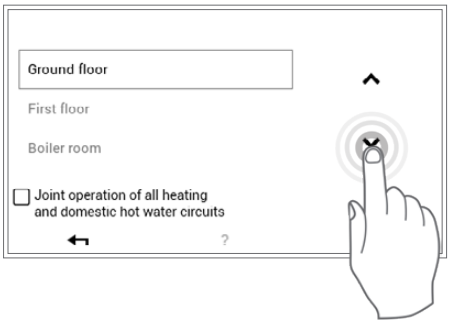
5 The current hot water temperature is displayed on the start screen and goes up or down until the desired water temperature is reached.

6.7.3 Select heating circuit (if there are several)



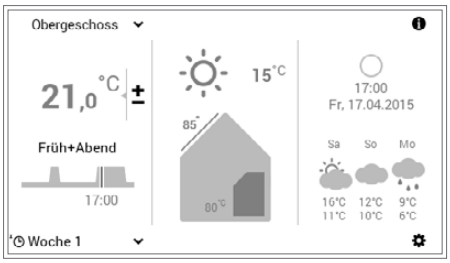
1 Touch the displayed **heating circuit** to select it (example: ground floor).

If your system only has one heating circuit, no heating circuit selection is displayed.



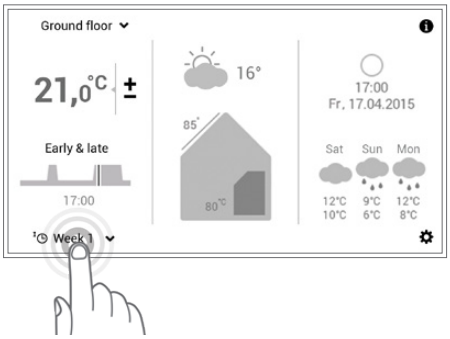
2 Use the **vertical arrows** (⌃⌄) to select the required heating circuit and confirm with **OK**.

If there are several heating circuits (e.g. apartments), activating the **"Joint operation"** checkbox (6.7.8, page 31) allows all heating circuits to be controlled jointly. The room temperature, the day program and the basic program are thus changed at the same time in all circuits.

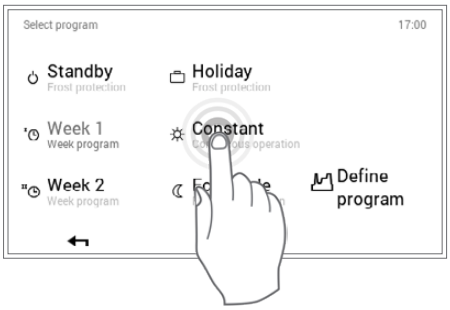


3 The selected heating circuit is displayed on the start screen. All settings in the left area of the control module are now accepted for this heating circuit.

6.7.4 Change the basic program (heating circuit)

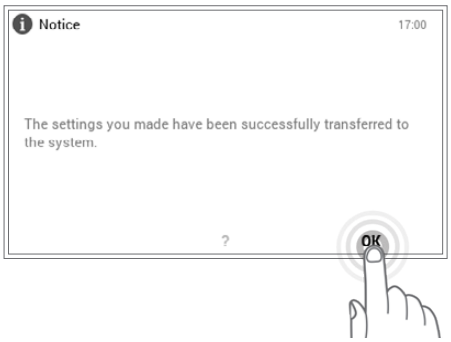


1 Touch the displayed **basic program** to select it (example: Week 1).

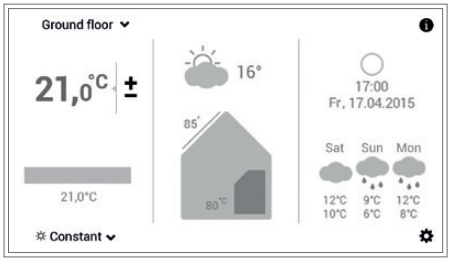


2 Select the desired **basic program**.

Individual basic programs additionally require the room temperature or the return date to be entered (6.8.2, page 33).

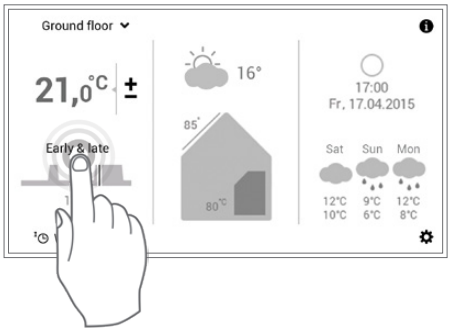


3 A change message is displayed. Confirm this with **OK.**

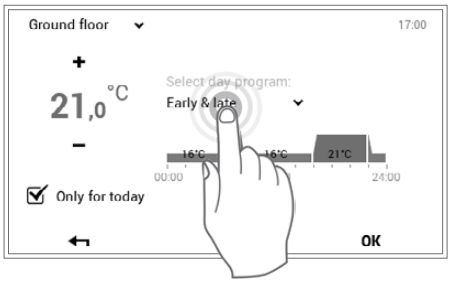


4 The new active basic program is displayed on the start screen.

6.7.5 Change active day program (heating circuit)

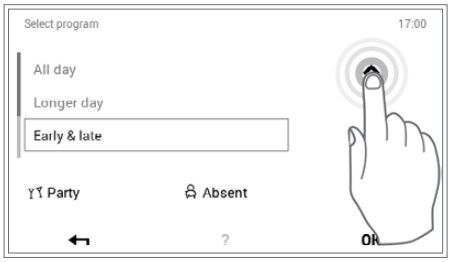


1 Touch the displayed **day program** to select it (example: early & late).

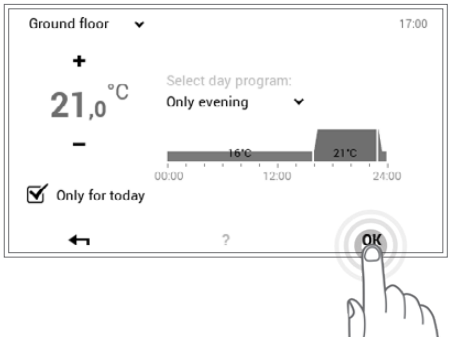


2 Touch the active **day program** to select it.

The adaptation to the day program is only accepted in the active week program for the current day. Deactivate the checkbox for **"Only for today"** to store the change in the week program.



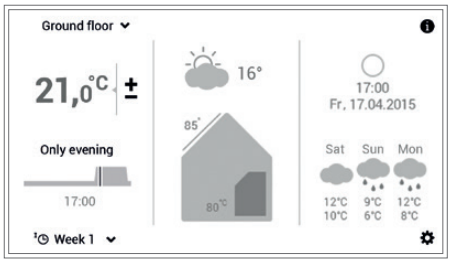
3 Use the **vertical arrows** (⌃⌄) to select the required day program and confirm with **OK**.



4 The selected day program is now displayed with the associated switching cycles as well as the room temperature.

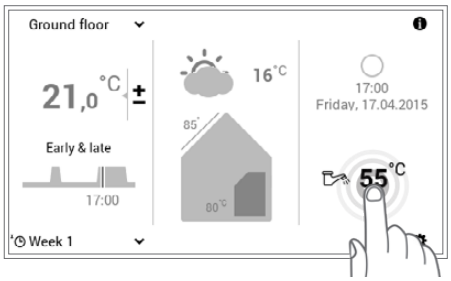
The room temperature can be adapted again after the new desired day program has been selected.

5 A change message is displayed. Confirm this with **OK**. Touch the **Back** (←) button if you want to edit the settings again.



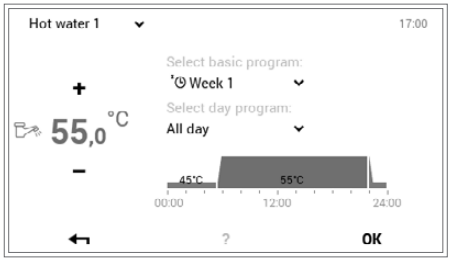
6 The new selected day program is displayed on the start screen.

6.7.6 Change basic and day program (hot water)



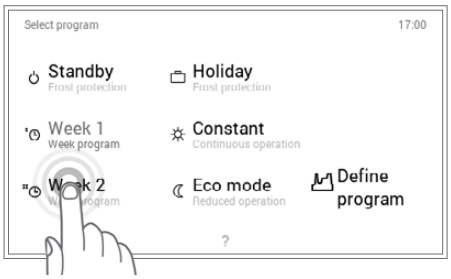
1 Touch the displayed **hot water temperature** to select it.

In connection with the TopTronic® E online, the weather forecast is displayed on your start screen as an option. You can also access the function for adapting the required water temperature using **Main menu** > **Hot water** (6.12.1, page 62).



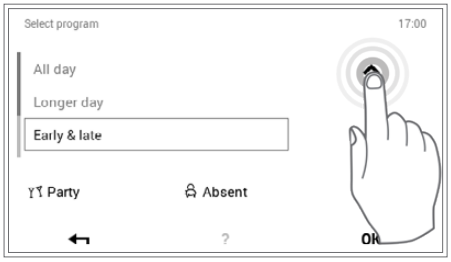
2 Touch the **hot water basic program** or **hot water day program** to select it.

Hot water basic and day programs are independent from the heating circuit basic and day programs. The hot water basic program can be set to **Week 1**, for example, while the heating operation is heating with the **Constant** setting.



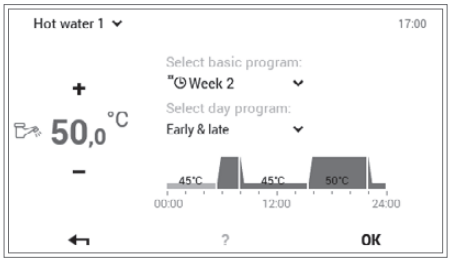
3 Select basic program:

Select the desired hot water basic program.

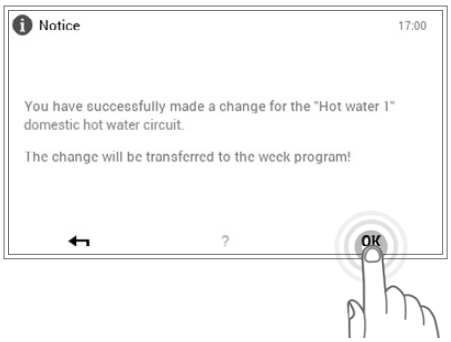


Select day program:

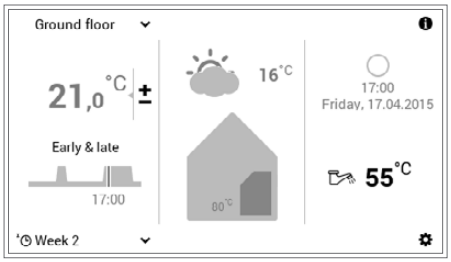
Use the vertical arrows (⌃⌄) to select the required hot water day program and confirm with OK.



4 The selected basic or day program for water heating is displayed on the menu. Press OK to return to the start screen.



5 A change message is displayed. Confirm this with OK.

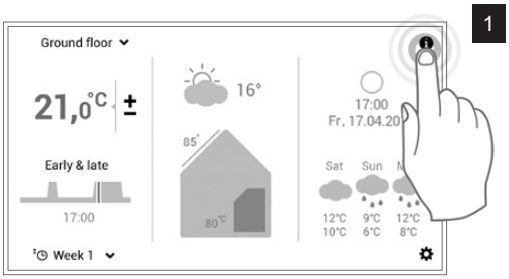


6 The current hot water temperature is displayed on the start screen and goes up or down until the water temperature of the selected basic or day program is reached.

With heat pumps:

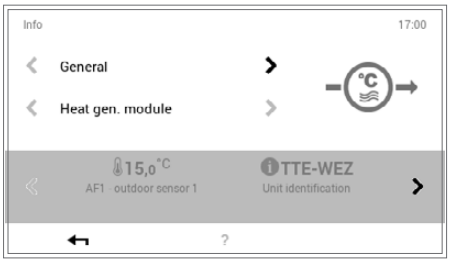
Under certain circumstances, at very low outside temperatures, it will not be possible to reach the required domestic hot water temperature or room temperature.

6.7.7 Call up system information



1 Touch the **Info** (ⓘ) button to select it.

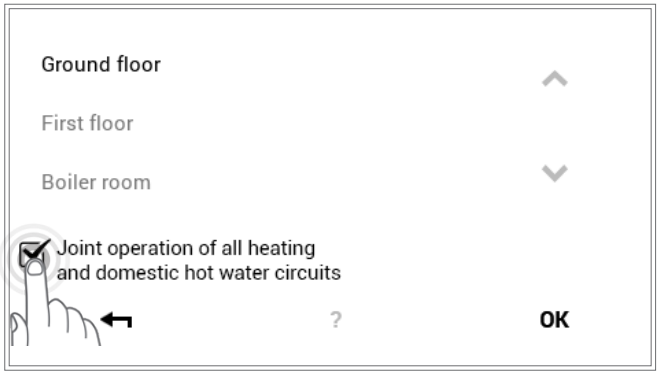
Also use the Main menu (⚙) > Info (page 2) to access the overview of the system information (6.12.2, page 63, no. 2).



2 The Info menu item is displayed. Information for each system area can be called up here. To do this, use the horizontal arrows (‹ ›) to select the corresponding areas. Use the Back (↩) button to exit the menu item. The start screen appears again.

6.7.8 Joint operation for heating and domestic hot water circuits

If your system has several heating circuits (e.g. apartments), the TopTronic® E control module offers the “Joint operation of all heating and domestic hot water circuits” function. For the same operating mode to be set for all heating and hot water circuits (max. 28 circuits), it is necessary for the “Joint operation of all heating and domestic hot water circuits” checkbox to be activated (6.7.3, page 27, no. 2). The room temperature, the day program and the basic program are thus changed at the same time in all circuits.

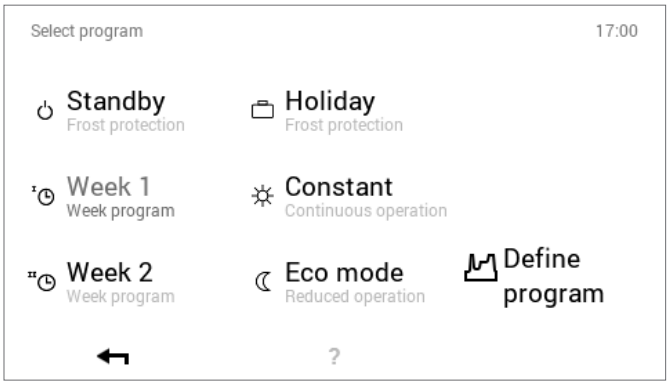


Programs are controlled as follows in joint operation:

Temperature	Synchronisation exclusively in the heating circuits There is no synchronisation of the hot water and the heating circuit temperatures during the joint operating.
Basic programs	Synchronisation in the heating and hot water circuits
Day programs	Synchronisation exclusively in the heating circuits
“Special day programs” (Party and Absent)	Synchronisation in the heating and hot water circuits

6.8 Basic programs

Basic programs are referred to as the operating modes of the TopTronic® E control and, in contrast to the day programs (6.10, page 44), they are usually selected for a lengthy period of time. You can thus achieve targeted energy savings by deliberately selecting the right basic program.
The basic programs **Week 1** and **Week 2** are available for recurrent weekly rhythms. Here, you can plan your individual week(s) by allocating day programs (6.10, page 44) and regulate the heating operation specifically. In addition, for example, you can activate the **Standby** basic program if you will be absent for a relatively long period of time. The heating system consequently switches OFF and frost protection is activated. An overview of the functions of the basic programs is presented below.



The TopTronic® E automatically switches to summer disconnection as the outside temperatures rise, thus saving energy. This function requires an outdoor sensor, however.

Refer to 6.7.4, page 27 for a detailed description of selecting basic programs.

6.8.1 Functions of the various basic programs

Basic program	Possible occasion and functions
Week 1 Day programs	**You are at home all day, every day of the week.** • Heating operation defined by individual day programs • Hot water operation active in a separate basic program • In the standard program during the day continuous heating operation at 22 °C, at night reduced heating operation (16 °C). On Saturdays and Sundays, heating operation during the day at 22 °C and at night reduced heating operation (16 °C). • Mo – Su = heating “all day” • For more information about “Week 2”, see chapter 6.9, page 35
Week 2 Day programs	**You go to work during the day from Monday to Friday, and are at home on Saturday and Sunday.** • Heating operation defined by individual day programs • Hot water operation active in a separate basic program • In the standard program mornings and evenings heating operation at 22 °C, during the day and at night reduced heating operation (16 °C). On Saturdays and Sundays, heating operation during the day at 22 °C and at night reduced heating operation (16 °C). • Mo – Fr = early & late / Sa and Su = all day • For more information about “Week 1”, see chapter 6.9, page 35
Eco mode Reduced operation	**You feel comfortable with a slightly lower temperature and you would like to save energy.** • Continuously reduced 24 h operation • Constant room temperature - optional • Hot water operation active in a separate basic program

Constant
Continuous operation

You would like to heat the rooms during the night, too.

- Room temperature is not reduced during the night
- Constant room temperature - optional
- Hot water operation active in a separate basic program

Holiday
Frost protection

You are going on holiday for e.g. 1 week and you know the date of your return.

- Heating system OFF
- No hot water operation
- Frost protection activated

Start date holiday = heating OFF at 24:00
End date holiday = heating ON at 24:00
(to ensure your house is warm when you come home set the return date one day earlier)

Standby
Frost protection

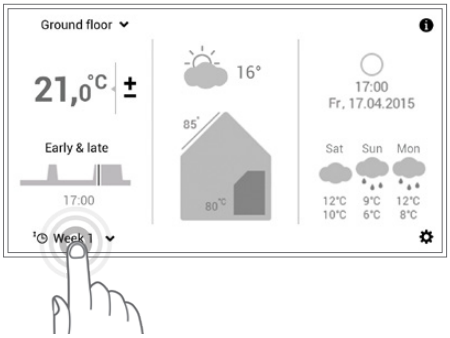
You are travelling for an indefinite period of time in spring or in autumn. It does not matter if the rooms are cold on your return. You do not need warm water on your return.

- Heating system OFF
- Frost protection active
- No hot water operation

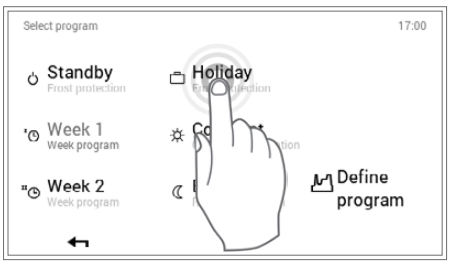
If joint operating mode is not active, the “Standby” basic program only acts on the selected heating circuit!

6.8.2 “Holiday” – enter return date

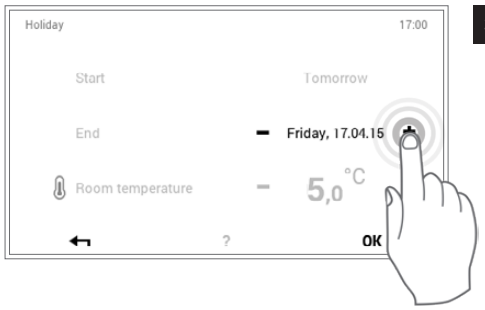
Switching to the Holiday basic program additionally requires the return date to be entered for automatic resumption of heating operation. On the entered return date (24:00 hours), the system switches back to the previously active basic program.



1 Touch the displayed **basic program** to select it (example: Week 1).

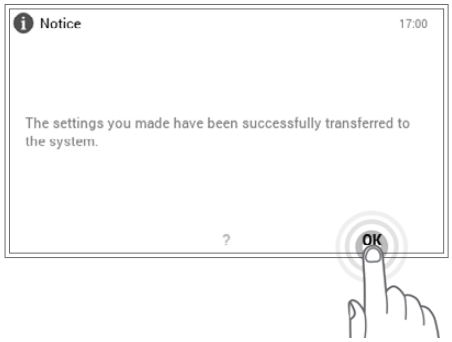


2 Select the **Holiday** basic program.

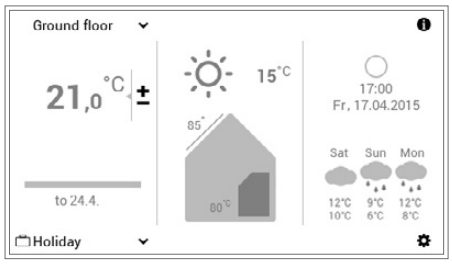


3 Touch the **plus** (✚) button several times or select the **current date** to select the required return date (minus at least 1 day). Accept the settings with **OK**.

Start: the system is switched OFF at 0:00 hours (frost protection activated).



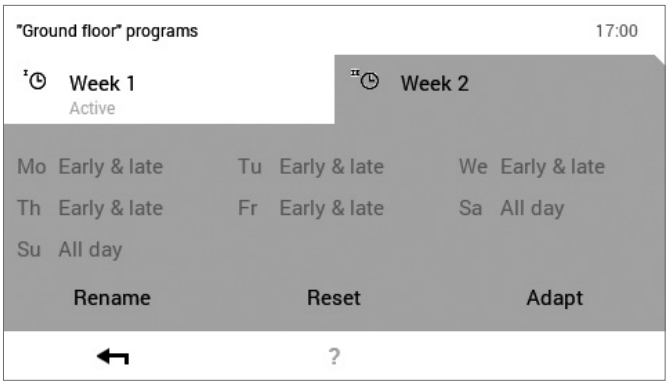
4 A change message is displayed. Confirm this with **OK**.



5 The newly selected basic program is displayed on the start screen.

6.9 Week programs

The **Week 1** and **Week 2** operating modes integrated in the basic programs are referred to as week programs. These enable you to plan your individual weekly rhythm (example: working week, early shift, late shift, etc.). To make the selection easier for you, it is possible to edit the names of the week program individually. In this case, each day of the week keeps its own day program with integrated switching cycles (6.10, page 44). You can also adapt these to your personal requirements and assign them to the week program.



Refer to 6.9.4, page 38 for a detailed description of editing the week programs.

6.9.1 Week program default settings

The predefined week programs (Week 1 and Week 2) are used as default settings and can be activated using the **Week 1** and **Week 2** basic programs as operating mode. They can be edited individually (6.9.4, page 38) and renamed (6.9.5, page 40). Changed week programs can be reset to the default settings (see below) (6.9.6, page 42).

Resetting the week programs does not reset the day programs they include!

Week program default settings:

Week 1

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
All day	All day	All day	All day	All day	All day	All day

Week 2

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Early & late	Early & late	Early & late	Early & late	Early & late	All day	All day

Attention: Each heating circuit has two week programs. These can be composed of five different day programs (6.10, page 44). These day programs only apply in the particular heating circuit and are independent from the programs in other circuits!

6.9.2 Notes on personal week programs

For a clear display of the week programs that you have created, you will find two empty tables below in which you can record the day programs that you have stored.

For heating systems with several heating circuits, please make a copy of the empty tables.

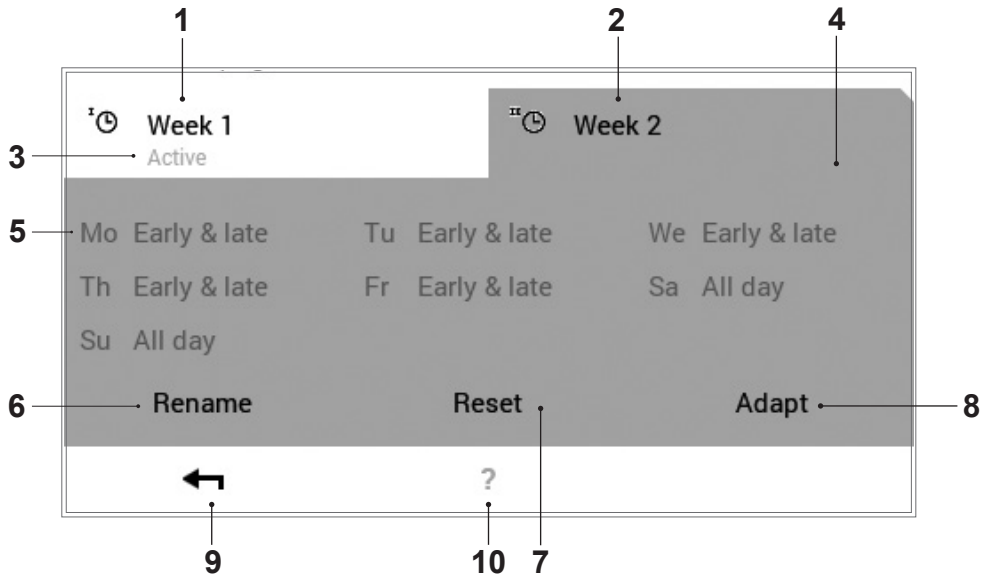
Week program 1: _____

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Day program:	Day program:	Day program:	Day program:	Day program:	Day program:	Day program:

Week program 2: _____

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Day program:	Day program:	Day program:	Day program:	Day program:	Day program:	Day program:

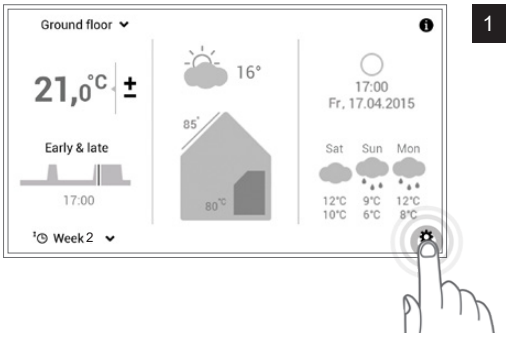
6.9.3 Week program operating elements



No.	Designation	Function
1	**Week program 1**	Heating program with individual week cycle 1
2	**Week program 2**	Heating program with individual week cycle 2
3	**Active week program in heating circuit**	Displays the active week program in the heating circuit. The message is not displayed if neither of the two week programs is operating.
4	**For editing active week program**	Marks the week program selected for editing (rename / reset / adapt).
5	**Defined week cycle**	Day programs assigned to the week days. The seven assigned day programs thus make up the week cycle or the week program.
6	**Rename**	Individual renaming of the selected week program (6.9.5, page 40)
7	**Reset**	Reset the selected week program to the default settings (6.9.6, page 42)
8	**Adapt**	Assignment of the day programs to the individual days of the week (6.9.4, page 38)
9	**Back**	Return (↩) to the previous screen.
10	**Help**	Summarised information about the screen area shown above

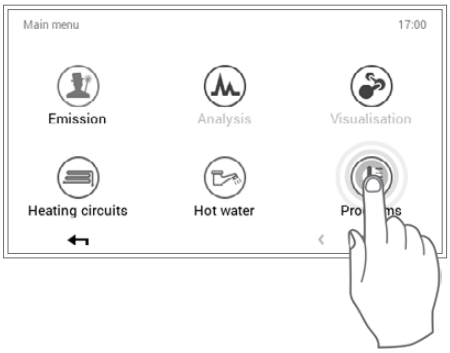
The illustrated screen is the standard view. Various elements can be renamed and adapted by the user in the menu.

6.9.4 Adapt week program

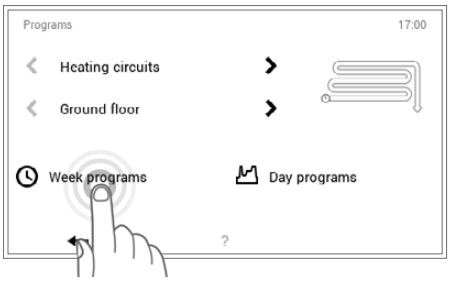


1 Touch the **Main menu** (⚙) button to select it.

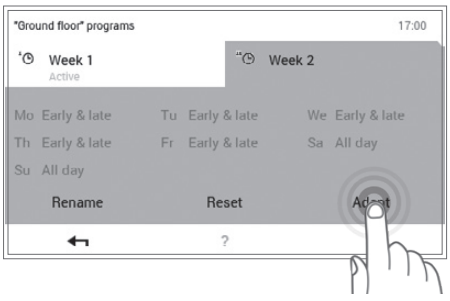
“Adapt week program” is also possible using Basic program Week 2 > “Define program”.



2 Touch the **Programs** button to select it.

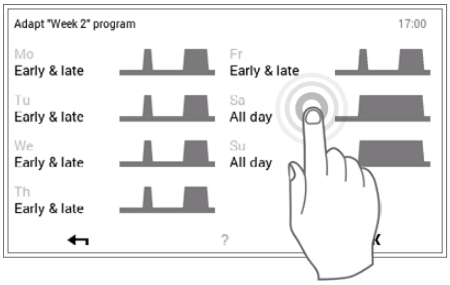


3 The overview for the heating circuit and the program selection appears. Select the required heating circuit and then **Week programs**.



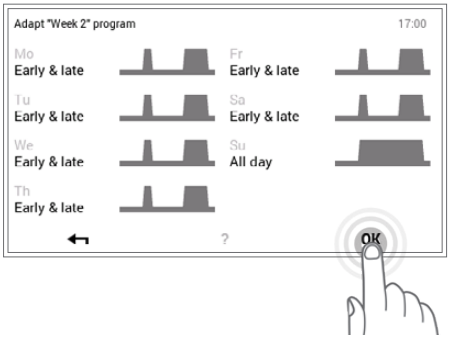
4 Select the required week program (example: Week 2). Touch the **Adapt** button to make settings in the selected week program.

The names of the week programs (Week 1 and Week 2) may be different if they have already been changed.

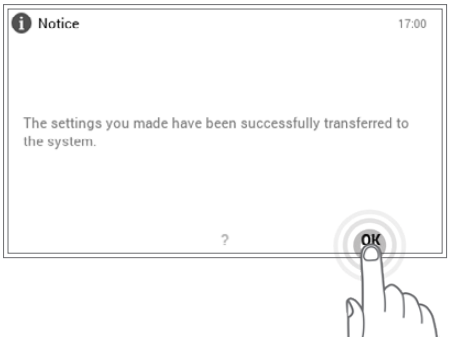


5 Select the required **week day** to assign a new day program to it.

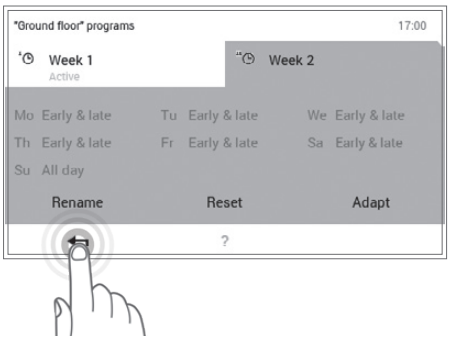
6 Use the **vertical arrows** (⌃⌄) to select the new day program and confirm with **OK**.



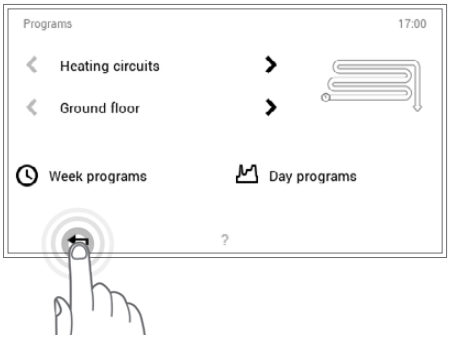
7 The overview of the selected week program opens again. Press **OK** to accept the adaptation.



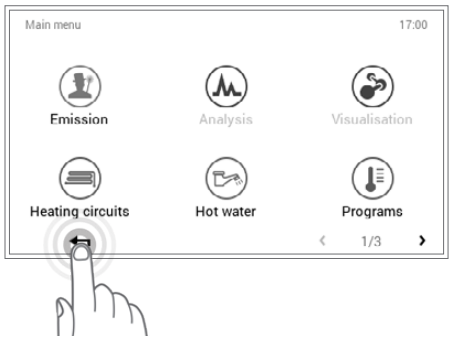
8 A change message is displayed. Confirm this with **OK**.



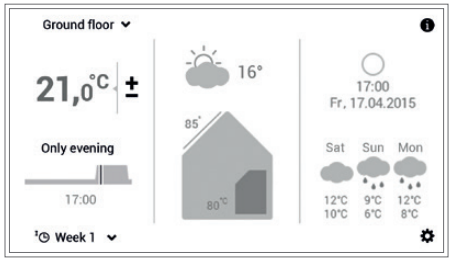
9 The adaptations are displayed in the selected week program. Press **Back** (←) to return to the menu item.



10 Touch **Back** (←) to close the **Programs** menu item.

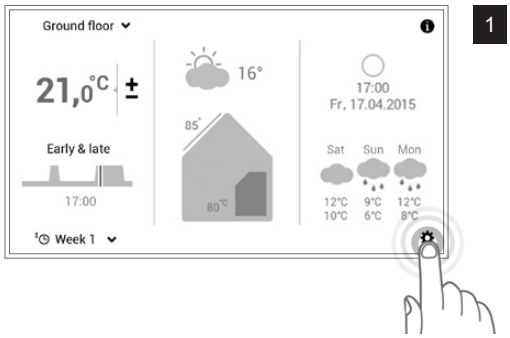


11 Select **Back** ( ) again to close the main menu.

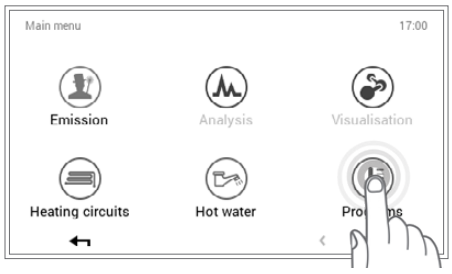


12 If the week program is active, the settings are displayed on the start screen.

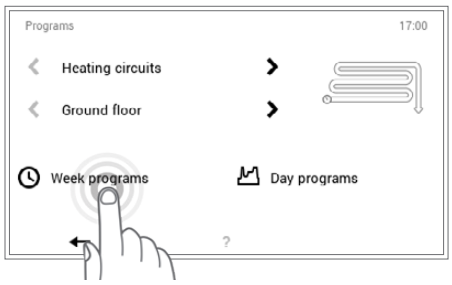
6.9.5 Rename week program



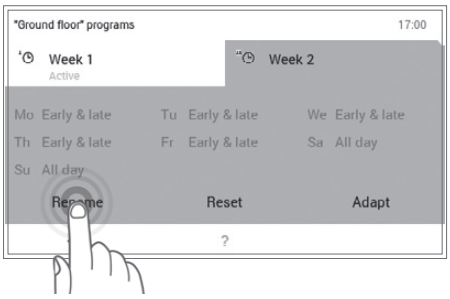
1 Touch the **Main menu** ( ) button to select it.



2 Touch the **Programs** button to select it.



3 The overview for the heating circuit and the program selection appears. Select the required heating circuit and then **Week programs**.

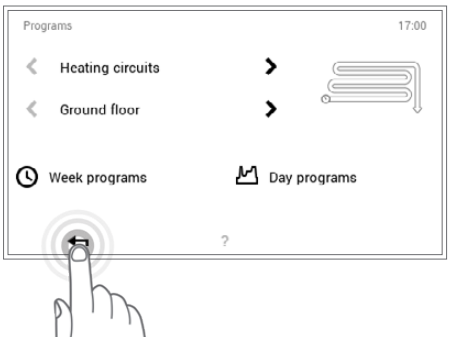


4 Select the required week program (example: Week 2). Touch the **Rename** button to select it.

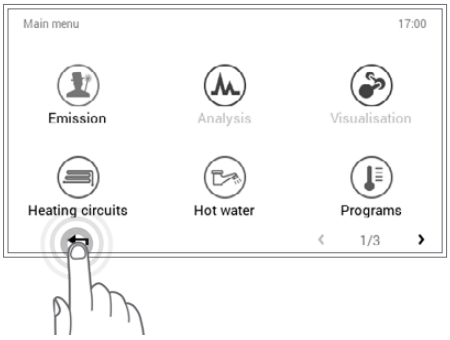
The names of the week programs (Week 1 and Week 2) may be different if they have already been changed.

5 A **keypad** appears on the screen that you can use for renaming the selected week program. Press **OK** to accept the entry.

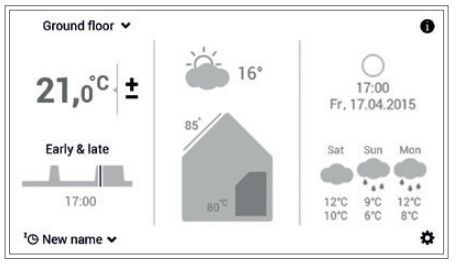
6 The new name is displayed in the selected week program. Press **OK** or **Back** (←) to return to the menu item.



7 Touch **Back** (←) to close the **Programs** menu item.

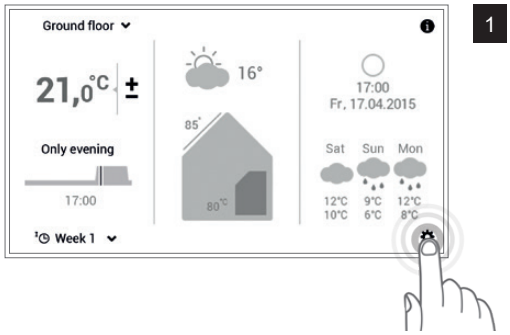


8 Select **Back** (←) again to close the main menu.

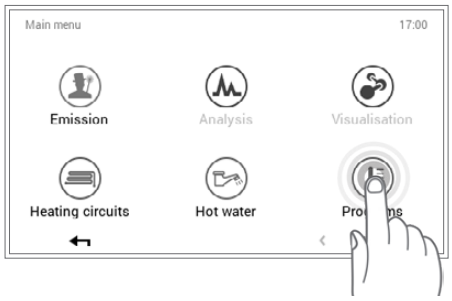


9 If the newly named week program is active as the basic program, the new name is displayed on the start screen.

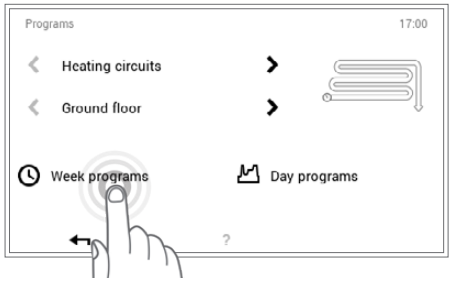
6.9.6 Reset week program



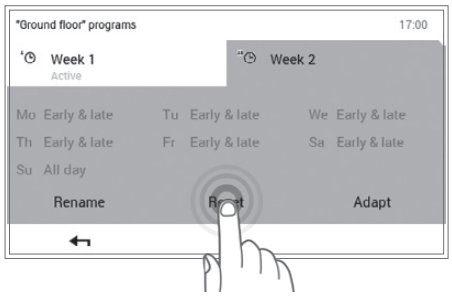
1 Touch the **Main menu** (⚙) button to select it.



2 Touch the **Programs** button to select it.

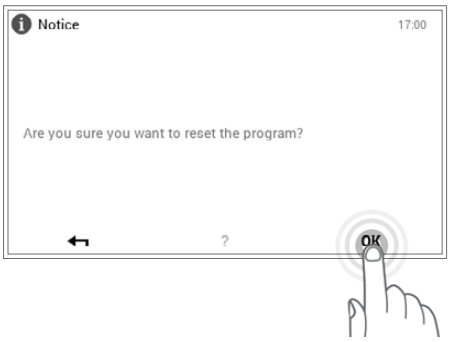


3 The overview for the heating circuit and the program selection appears. Select the required heating circuit and then **Week programs**.

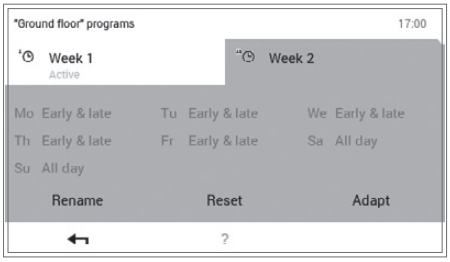


4 Select the required week program (example: Week 2). Touch the **Reset** button to reset the settings in the selected week program to their default values.

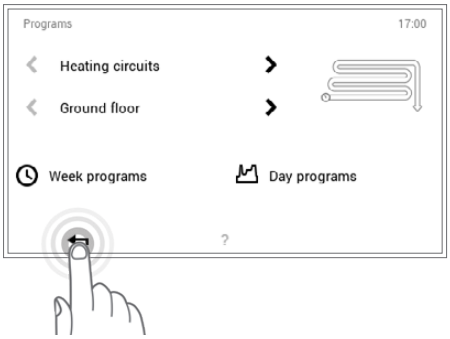
The names of the week programs (Week 1 and Week 2) may be different if they have already been changed.



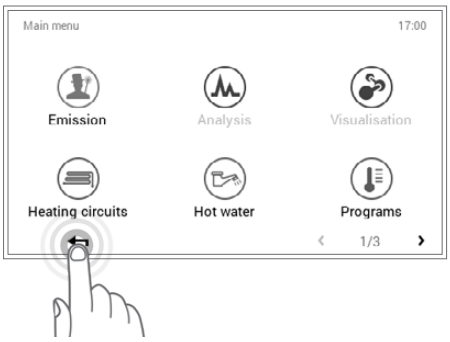
5 A confirmation message is displayed. Confirm this with **OK**. Press **Back** (←) to go back without resetting the program.



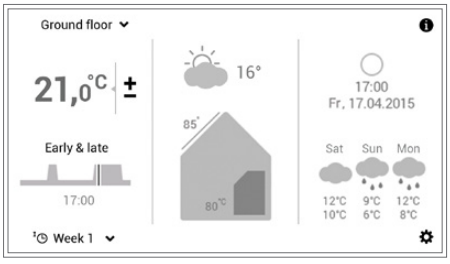
6 The pre-programmed standard program is displayed in the selected week program. Press **OK** or **Back** (←) to return to the menu item.



7 Touch **Back** (←) to close the **Programs** menu item.



8 Select **Back** (←) again to close the main menu.



9 If the reset week program is active, the default settings are displayed on the start screen.

6.10 Day programs / switching cycles

Day programs are elements which are subordinate to the week program and contain what are referred to as switching cycles with corresponding room temperature specifications. You can adapt day programs and switching cycles to meet your particular requirements. Thus, for example, the heat output can be reduced for regular and recurrent periods of absence (e.g. working day) or the temperature can be specifically adapted for presences with different time periods.

- The heating circuit day programs/switching cycles are independent from the hot water day programs (6.11, page 55).
- The preset day programs with defined switching cycles can be adapted and renamed.
- The switching cycles of a day program are only active if the corresponding week program is selected as the basic program.
- A maximum of six switching cycles are possible for each day program.

6.10.1 Default settings for day programs / switching cycles

In the factory setting, the names and the switching cycles of the day programs are predefined. Two of these standard day programs (all day and early & late) are already assigned to both week programs **Week 1** and **Week 2**. If you adapt these two day programs to your individual requirements, you need to consider that both week programs are also changed (6.5, page 19). You can edit the default settings listed below as you require (6.10.5, page 49), rename them at any time (6.10.6, page 51) and reset to the default settings (6.10.7, page 53).

Default settings for day programs

Day programs	Switching cycle / temperature			Example
All day	**from**	**to**	**°C**	I work at home and I am present all day.
	**00:00**	06:00	16	
	06:00	22:00	22	
	22:00	00:00	16	
Longer day	**from**	**to**	**°C**	I am at home all day and I go to bed later in the evening.
	**00:00**	06:00	16	
	06:00	23:00	22	
	23:00	00:00	16	
Early & late	**from**	**to**	**°C**	I go to work at 08:00 hours in the morning and I do not return home until 17:00 hours in the evening.
	**00:00**	06:00	16	
	06:00	08:00	22	
	08:00	16:00	16	
	16:00	22:00	22	
	22:00	00:00	16	
Only evening	**from**	**to**	**°C**	I do not need any heating in the morning before I set off to work. I get back home at 17:00 hours in the evening.
	**00:00**	16:00	16	
	16:00	23:00	22	
	23:00	00:00	16	

NEW

from	to	°C
00:00	06:00	16
06:00	08:00	22
08:00	16:00	16
16:00	22:00	22
22:00	00:00	16

I create my own day program and adapt the switching cycles individually to my requirements. I use the switching cycles of the “Early & late” day program as a template.

6.10.2 Notes on personal day programs

For a clear display of the day programs that you have created, you will find six tables below in which you can make a note of the stored switching cycles and temperature settings. Please remember that only six day programs can be recorded in the tables. For systems with several heating circuits, please make a copy of the empty tables.

Day program for living area (heating circuit):			
Name of day program	**from**	**to**	**°C**

Day program for living area (heating circuit):			
Name of day program	**from**	**to**	**°C**

Day program for living area (heating circuit):			
Name of day program	**from**	**to**	**°C**

Day program for living area (heating circuit):			
Name of day program	**from**	**to**	**°C**

Day program for living area (heating circuit):			
Name of day program	**from**	**to**	**°C**

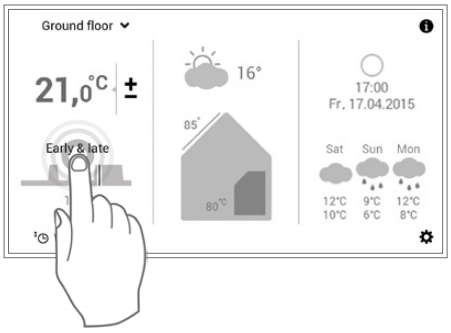
Day program for living area (heating circuit):			
Name of day program	**from**	**to**	**°C**

6.10.3 Party and absent

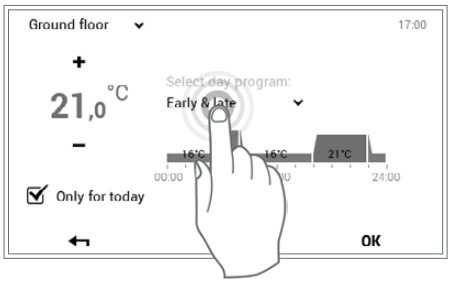
On the TopTronic® E, the day program can be changed at any time when a week program is active (6.7.5, page 28). If you come home earlier, for example, you can immediately activate the heating with a suitable day program. Furthermore, if you are going to have a party or if you will be absent for a short time, you can extend or reduce the heating time with the “Party” or “Absent” programs.

Day program	Possible occasion and function
Party	**You have guests in the evening.** • Continued heating operation at the entered room temperature until the end of the desired period of time (duration) • The room temperature should not be lowered at the preset time (day program)
Absent	**You leave home in the afternoon and will only come back late in the evening.** • (Reduced) heating operation at the desired room temperature until the end of the entered period of time (duration) • Calorifier frost protected (5 °C)

The two “Party” and “Absent” programs can be selected as follows:

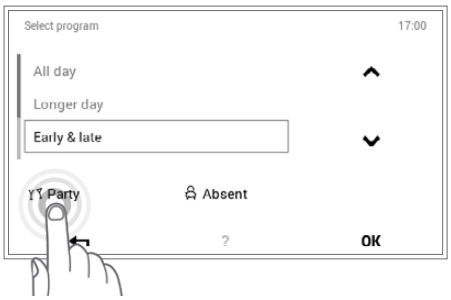


1 Touch the displayed **day program** to select it (example: early & late).

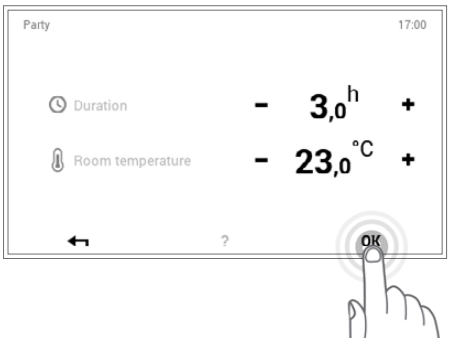


2 Touch the active **day program** to select it.

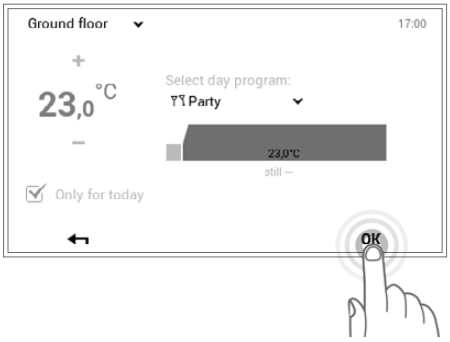
The adaptation to the day program is only accepted in the active week program for the current day. Deactivate the checkbox for **“Only for today”** to store the change in the week program.



3 Select the desired program, **Party** or **Absent**.

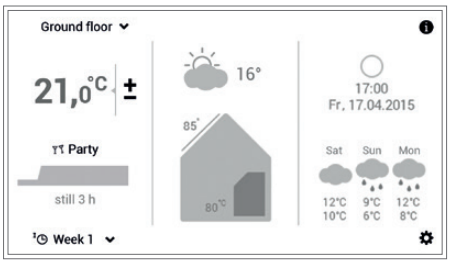


4 Press **plus** (**+**) and **minus** (**–**) to set the required duration and room temperature and confirm with **OK**.



5 The active day program and the set room temperature can be seen on the screen. Accept the setting with **OK**.

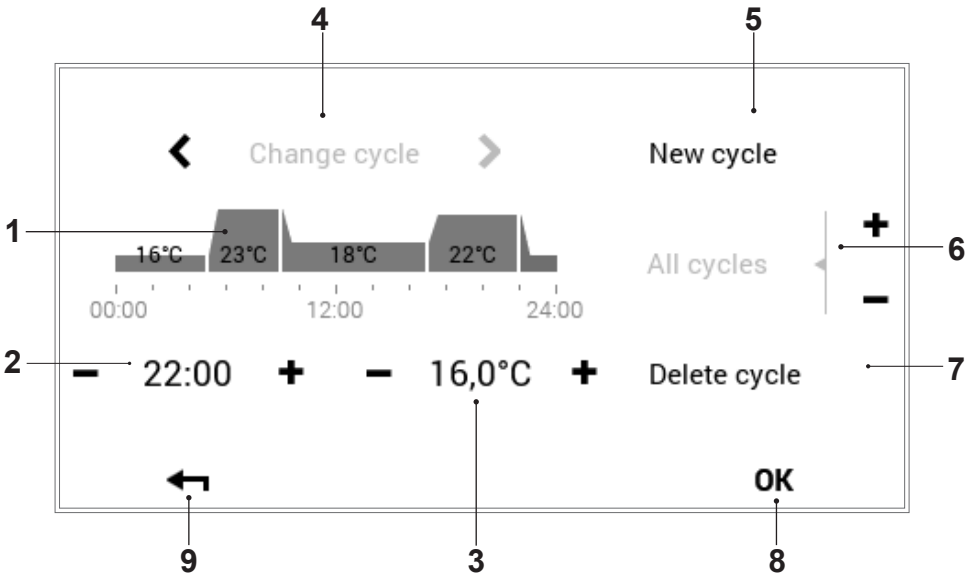
6 A change message is displayed. Confirm this with **OK**. Touch the **Back** (←) button if you want to edit the settings again.



7 The new selected day program (Party) is displayed on the start screen.

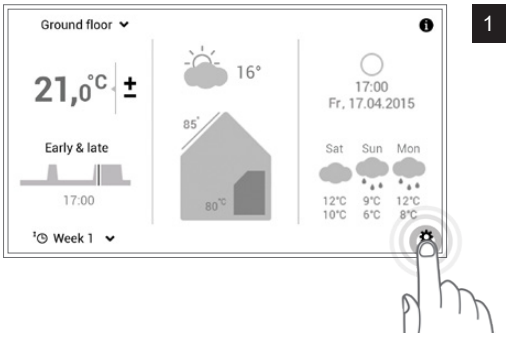
“Party” and “Absent” are special day programs and cannot be included in week programs.

6.10.4 Day program / switching cycles operating elements

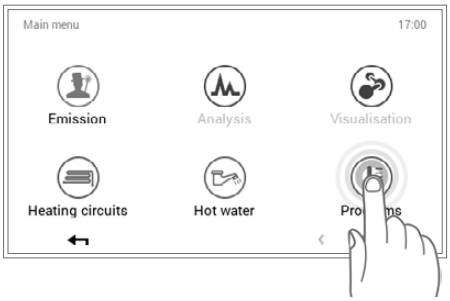


No.	Designation	Function
1	**Day program / switching cycles**	For adapting the selected day program with time cycles and corresponding temperature specifications. The time period marked in yellow shows the cycle that is active during the editing. The horizontal arrows (‹ ›) are used for selecting the required period of time. Alternatively, the switching cycle to be edited can also be touched directly.
2	**Start time – active cycle**	Displays the start time of the selected cycle. Changes can be made to the start time using plus (+) and minus (–).
3	**Temperature – active cycle**	Represents the room temperature defined in the cycle. The temperature can be changed in the active cycle with plus (+) and minus (–).
4	**Change cycle**	Switch the cycle to be edited to the left or right. Alternatively, the switching cycle to be edited can also be touched directly.
5	**New cycle**	Create a new time cycle. The new cycle is added at the end of the day program.
6	**All cycles**	Increase or reduce the temperature of all cycles with plus (+) and minus (–) in the complete day program.
7	**Delete cycle**	Remove the selected cycle.
8	**OK**	Save (OK) the changes in the selected day program and return to the previous screen.
9	**Back**	Return (↩) to the previous screen.

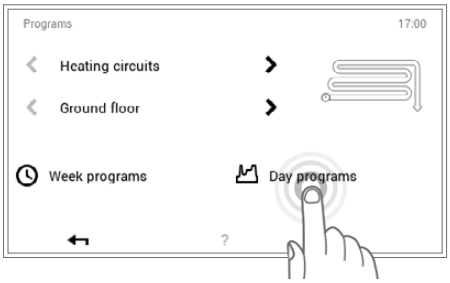
6.10.5 Change room temperatures and switching cycles in the day program



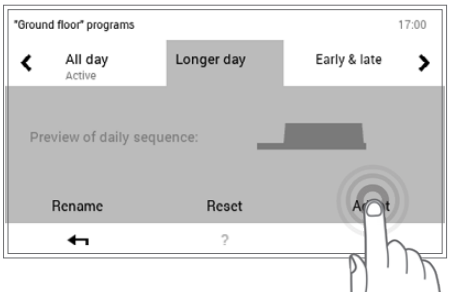
1 Touch the **Main menu** (⚙) button to select it.



2 Touch the **Programs** button to select it.

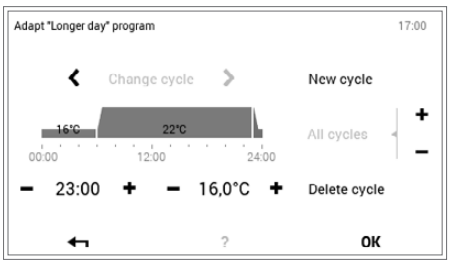


3 The overview for the heating circuit and the program selection appears. Select the required heating circuit and then **Day programs**.



4 Select the desired day program (example: longer day) with the **horizontal arrows** (‹ ›). Touch the **Adapt** button to make settings in the selected day program.

The names of the day programs may be different if they have already been changed.

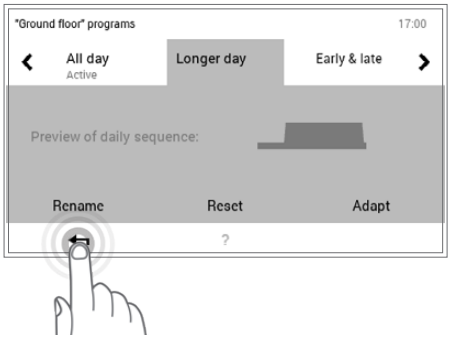


5 The overview of the selected day program is opened. Various adaptations can be made to the selected day program/switching cycle using **plus** (+) and **minus** (−). Press **OK** to accept the entry.

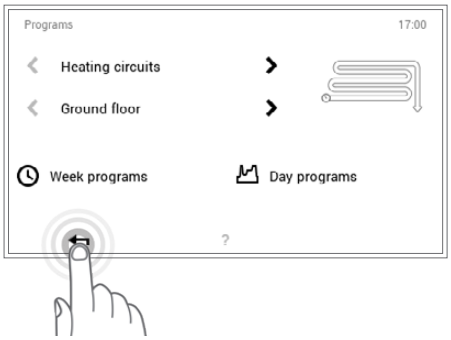
Refer to 6.10.4, page 48 for a detailed description of the day program overview.

6 A change message is displayed. Confirm this with **OK**.

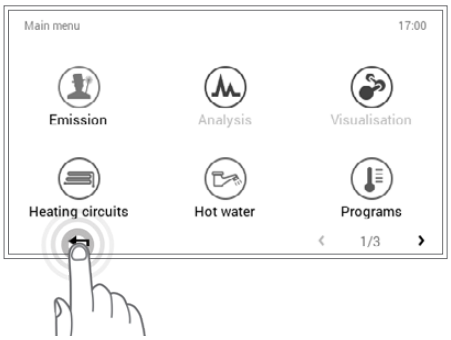
The change now acts both in week program 1 and in week program 2 (on all days of the week to which the changed day program is assigned).



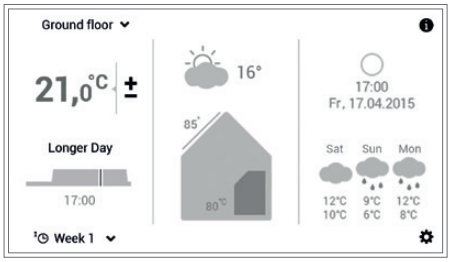
7 The adaptations are displayed in the selected day program. Press **Back** (←) to return to the menu item.



8 Touch **Back** (←) to close the **Programs** menu item.

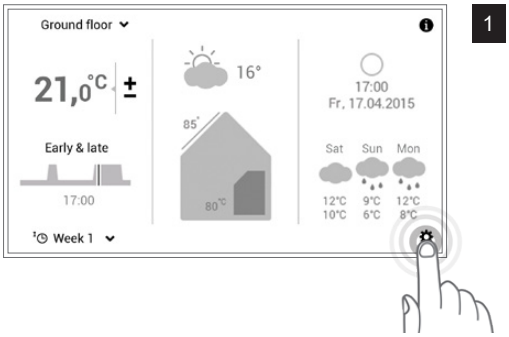


9 Select **Back** (←) again to close the main menu.

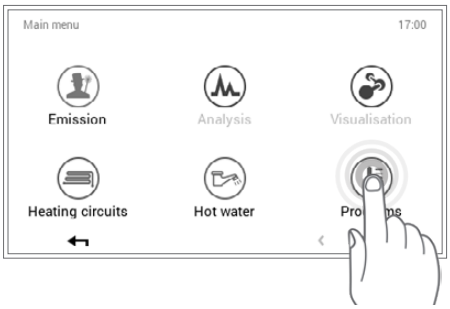


10 If the edited day program is active, the settings are displayed on the start screen.

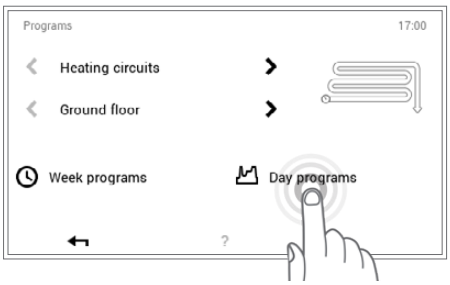
6.10.6 Rename day program



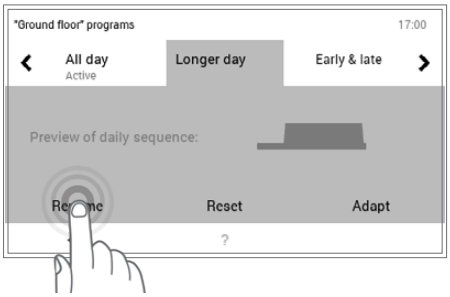
1 Touch the **Main menu** (⚙) button to select it.



2 Touch the **Programs** button to select it.



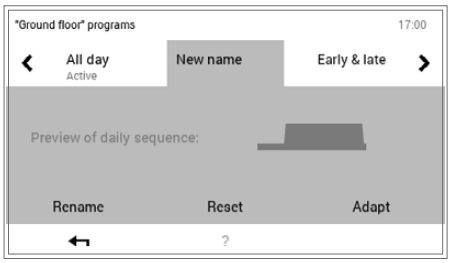
3 The overview for the heating circuit and the program selection appears. Select the required heating circuit and then **Day programs**.



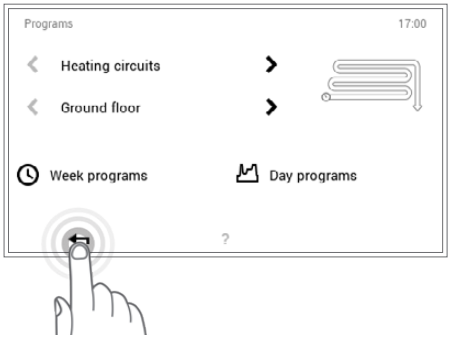
4 Select the desired day program (example: longer day) with the horizontal arrows (‹ ›). Touch the Rename button to select it.

The names of the day programs may be different if they have already been changed.

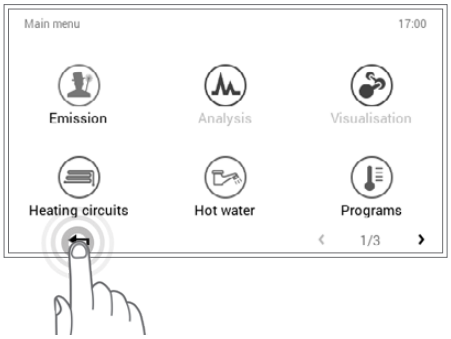
5 A keypad appears on the screen that you can use for renaming the selected day program. Press OK to accept the entry.



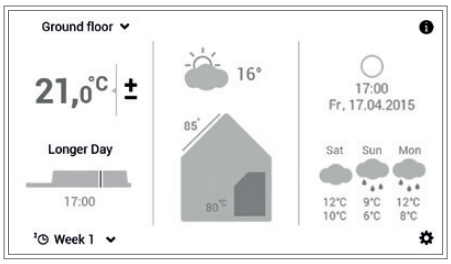
6 The new name is displayed in the selected day program. Press **Back** (⮌) to return to the menu item.



7 Touch **Back** (⮌) to close the **Programs** menu item.

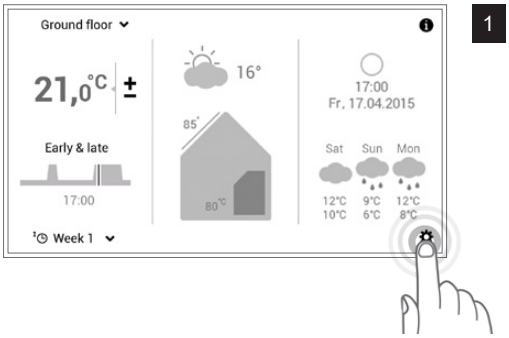


8 Select **Back** (⮌) again to close the main menu.

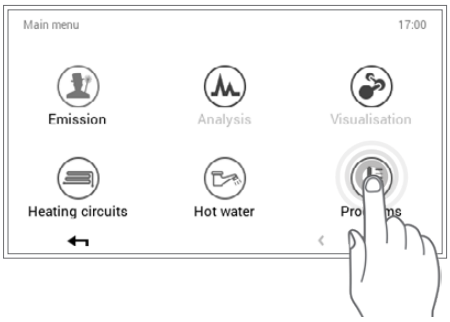


9 If the newly named day program is active as the basic program, the new name is displayed on the start screen.

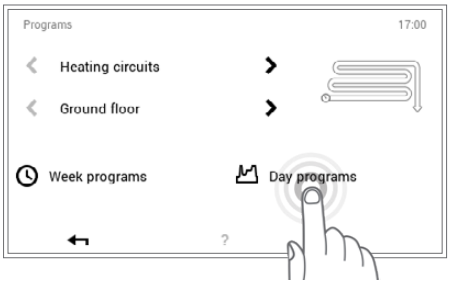
6.10.7 Reset day program



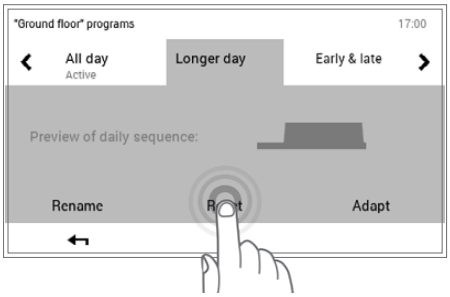
1 Touch the **Main menu** (⚙) button to select it.



2 Touch the **Programs** button to select it.

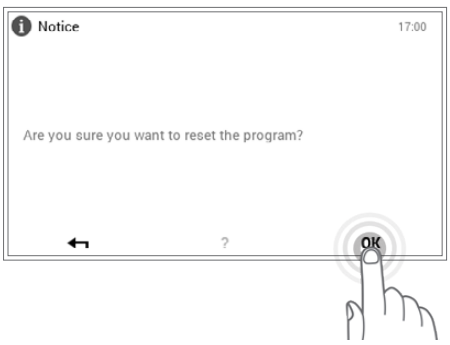


3 The overview for the heating circuit and the program selection appears. Select the required heating circuit and then **Day programs**.



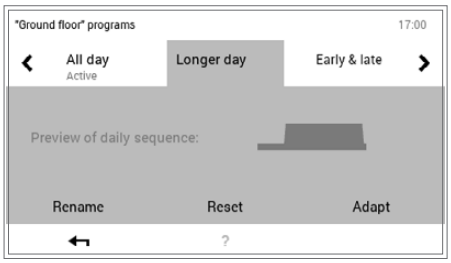
4 Select the desired day program (example: longer day) with the **horizontal arrows** (‹ ›). Touch the **Reset** button to reset the settings in the selected day program to their default values.

The names of the day programs may be different if they have already been changed.

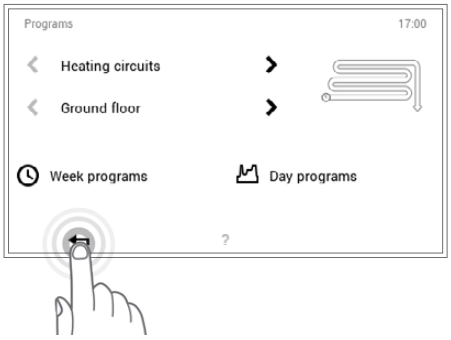


5 A confirmation message is displayed. Confirm this with **OK**. Press **Back** (←) to go back without resetting the program.

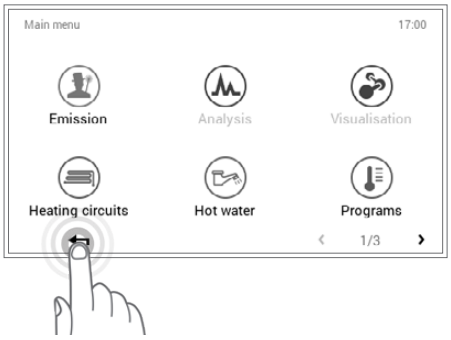
The name, the switching cycles as well as the required room temperatures of the day program are reset to the factory setting. If the reset day program is used in the week program, the factory setting is also active for this.



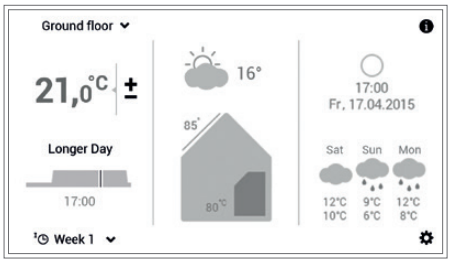
6 The pre-programmed standard program is displayed in the selected day program. Press **Back** (←) to return to the menu item.



7 Touch **Back** (←) to close the **Programs** menu item.



8 Select **Back** (←) again to close the main menu.



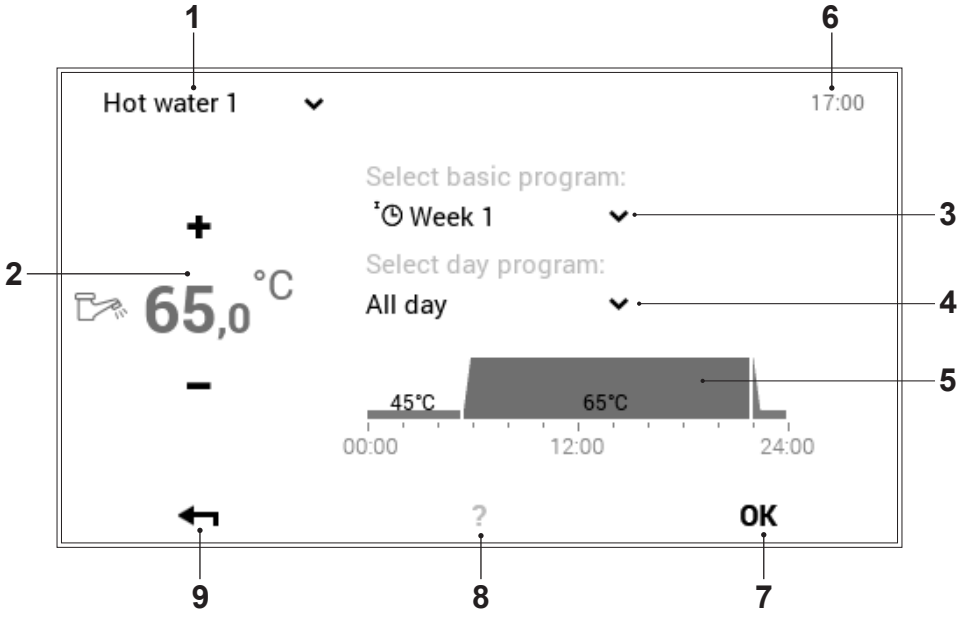
9 If the reset day program is active, the default settings are displayed on the start screen.

6.11 Hot water

Like in the area of the heating circuits, it is also possible to work with basic, week and day programs for hot water. The hot water programs that can be selected are independent from the heating circuit. Bear in mind that you have to activate each of the basic, week and day programs of the hot water separately (6.7.6, page 29) and edit them (6.12.6, page 67, no. 1).

There is no synchronisation of the hot water temperature during the joint operating mode (6.7.8, page 31).

6.11.1 Hot water operating elements



No.	Designation	Function
1	**Hot water circuit**	Display of the hot water circuit to be edited. Changes to the menu item are only stored in the selected hot water circuit. Use the down arrow (⌄) to switch to another hot water circuit in the heating system.
2	**Hot water temperature**	Represents the hot water temperature desired in the particular switching cycle. The hot water temperature can be changed in the active switching cycle using plus (+) and minus (−). (→ , page 30)
3	**Basic program**	Selection of the basic program. Use the down arrow (⌄) to select a new program for editing.
4	**Day program**	Active day program in the week program. Use the down arrow (⌄) to change the day program.
5	**Switching cycles**	Graphical display of the currently selected day program with all time cycles and corresponding temperature specifications. The time period marked in yellow shows the active cycle in which the water temperature can be changed with plus (+) and minus (−).
6	**Time of day**	Displays the current time.
7	**OK**	Save (OK) the changes in the selected hot water circuit and return to the previous screen
8	**Help**	No function is available at present
9	**Back**	Used as a button (↩) for returning to the main menu.

6.11.2 Week programs – hot water

As well as the week and day programs for the heating cycles, the TopTronic® E control module includes additional week and day programs for water heating. The structure of the programs and the functions are identical.

The settings can be made using **Main menu** (⚙) > **Programs**. For a detailed description, refer to 6.12.6, page 67, no. 1.

6.11.3 Week program default settings – hot water

The following week programs are used as default settings and can be activated with **Main menu** (⚙) > **Hot water**. The two week programs can be individually edited (6.12.6, page 67), renamed (6.12.6, page 67) and reset (6.12.6, page 67).

Resetting the week programs does not reset the day programs they include!

Week program default settings – hot water:

Week 1 – hot water

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
All day	All day	All day	All day	All day	All day	All day

Week 2 – hot water

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Early & late	Early & late	Early & late	Early & late	Early & late	All day	All day

Attention: Each hot water circuit has two week programs. These can be composed of five different day programs (6.11.4, page 57). These day programs only apply in the particular hot water circuit and are independent from the programs in other circuits!

6.11.4 Day programs / switching cycles for hot water

You can adapt the hot water day programs and switching cycles to your individual requirements and, in this way, control the water heating specifically for the required time period and hot water temperature if you use the hot water on a regular basis, for example.

- The hot water day programs/switching cycles are independent from the heating circuit day programs (6.10, page 44).
- The preset day programs with defined switching cycles can be adapted and renamed.
- The switching cycles of a day program are only active if the corresponding week program is selected as the basic program.
- A maximum of six switching cycles are possible for each day program.

6.11.5 Default settings for day programs / switching cycles – hot water

In the factory setting, the names and the switching cycles of the hot water day programs are predefined as with the heating circuits. Two of these standard day programs (all day and early & late) are assigned to both week programs **Week 1** and **Week 2**. If you adapt these two day programs to your individual requirements, you need to consider that both week programs are also changed (6.11.2, page 56). You can edit the default settings listed below as you require (6.12.6, page 67), rename them at any time (6.12.6, page 67) and reset to the default settings (6.12.6, page 67).

Default settings for day programs – hot water:

Day programs	Switching cycle / temperature			Example
All day	**from**	**to**	**°C**	I work at home and I am present all day.
	**00:00**	06:00	45	
	05:30	22:00	50	
	22:00	00:00	45	
Early & late	**from**	**to**	**°C**	I go to work at 08:00 hours in the morning and I do not return home until 17:00 hours in the evening.
	**00:00**	05:30	45	
	05:30	08:00	50	
	08:00	15:30	45	
	15:30	22:00	50	
	22:00	00:00	45	
Only evening	**from**	**to**	**°C**	I do not need any hot water in the morning before I set off to work. I get back home at 17:00 hours in the evening.
	**00:00**	15:30	45	
	15:30	22:00	50	
	22:00	00:00	45	
All day legio	**from**	**to**	**°C**	I work at home and I am present all day. In addition, the legionella function is active (6.11.6, page 58).
	**00:00**	05:30	45	
	05:30	15:30	50	
	15:30	16:30	60	
	16:30	22:00	50	
	22:00	00:00	45	

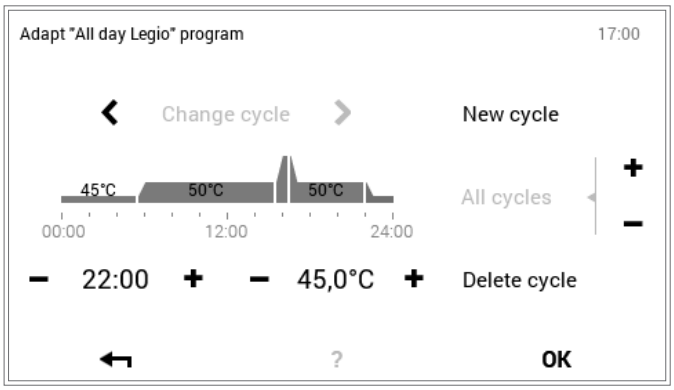
NEW

from	to	°C
00:00	05:30	45
05:30	08:00	50
08:00	15:30	45
15:30	22:00	50
22:00	00:00	45

I create my own day program and adapt the switching cycles individually to my requirements. I use the switching cycles of the “Early & late” day program as a template.

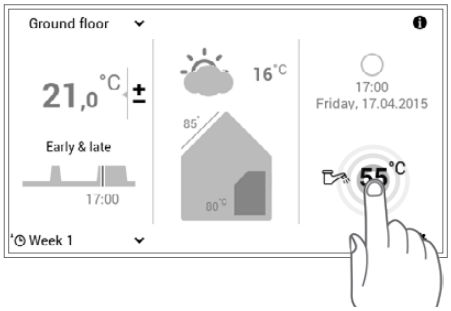
6.11.6 Legionella function

Legionella are bacteria that can cause Legionnaire’s disease. The optimum conditions for these bacteria to exist are hot water that is kept between 25 and 50 °C for long periods. Legionella are killed off when the full content of the water tank is heated through to 60 °C. The TopTronic® E control module includes a separate hot water day program (all day legio) that can be activated once a week in the week program.



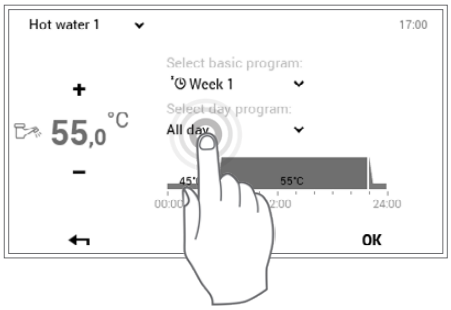
The legionella function can be activated in the **Main menu** (⚙) > **Programs** (6.12.6, page 67) by allocating the “all day legio” day program in the week program.

6.11.7 Recharging hot water



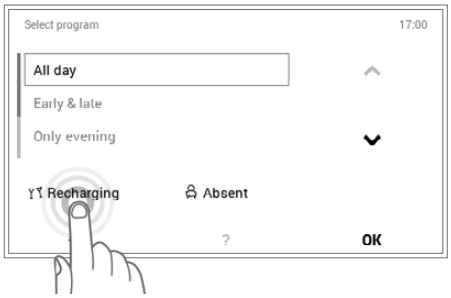
1 Touch the displayed water temperature to select it.

In connection with the TopTronic® E online, the weather forecast is displayed on your start screen as an option. You can also access the function for adapting the required water temperature using **Main menu** > **Hot water** (6.12.1, page 62).



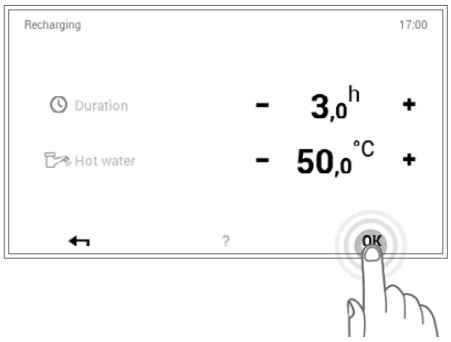
2 Touch the active **hot water day program** to select it.

The hot water day program is independent from the heating circuit day program. For example, it can be set to “early & late” while the heating operation is running with “all day”.

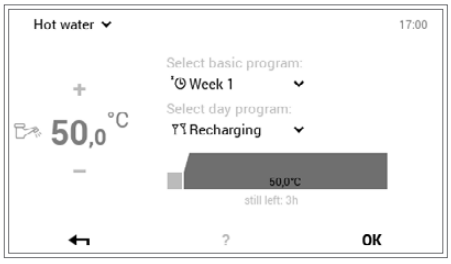


3 In the program selection, select the **Recharging** button.

With “Recharging”, it is possible to heat additional hot water. The duration and the hot water temperature can be set individually.

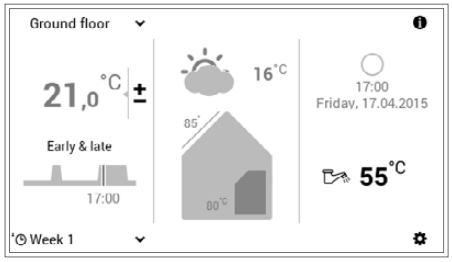


4 Press plus (**+**) and minus (**–**) to set the required duration and water temperature for recharging. Press **OK** to accept the settings.



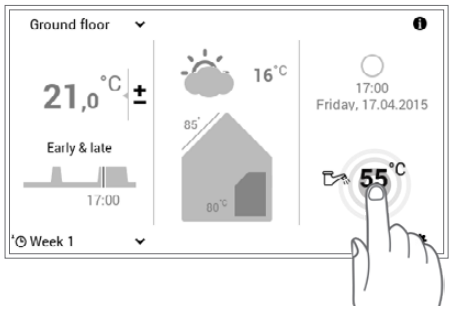
5 Hot water recharging is shown in the menu. Confirm the entries with **OK**.

6 A confirmation message is displayed. Confirm this with **OK**. Touch the **Back** (←) button if you want to edit the settings again.



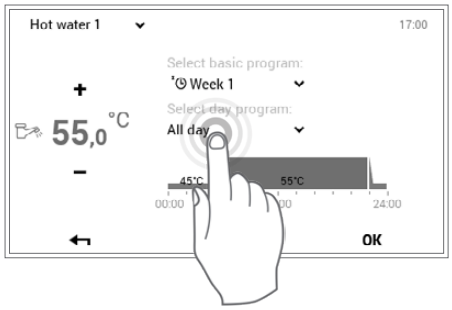
7 The current hot water temperature is displayed on the start screen and goes up or down until the desired water temperature of the recharging is reached.

6.11.8 Set hot water program to absent



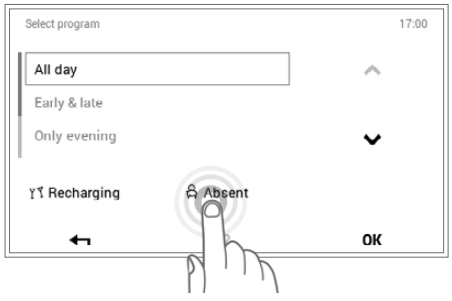
1 Touch the displayed **hot water temperature** to select it.

In connection with the TopTronic® E online, the weather forecast is displayed on your start screen as an option. You can also access the function for adapting the required water temperature using **Main menu** > **Hot water** (6.12.1, page 62).

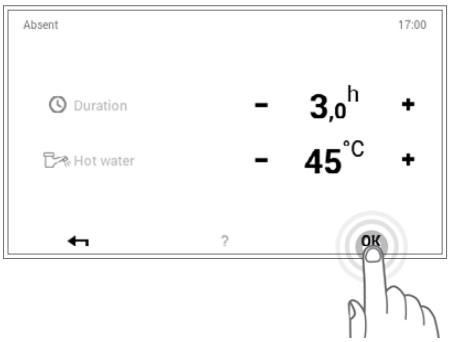


2 Touch the active **hot water day program** to select it.

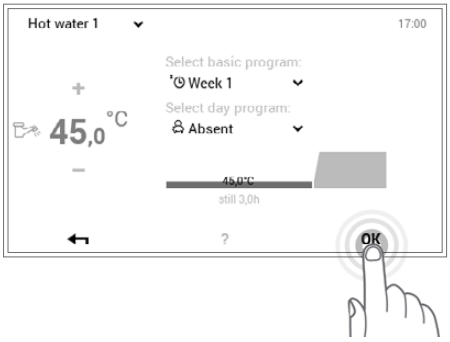
The hot water day program is independent from the heating circuit day program. For example, it can be set to “all day” while the heating operation is running with “early & late”.



3 In the program selection, select the **Absent** button.

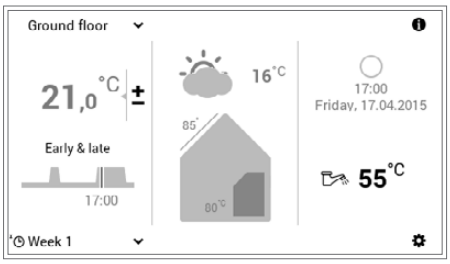


4 Press plus (+) and minus (−) to set the required duration of the absence as well as the desired water temperature. Press **OK** to accept the settings.



5 **Absent** is shown in the menu. Confirm the entries with **OK**.

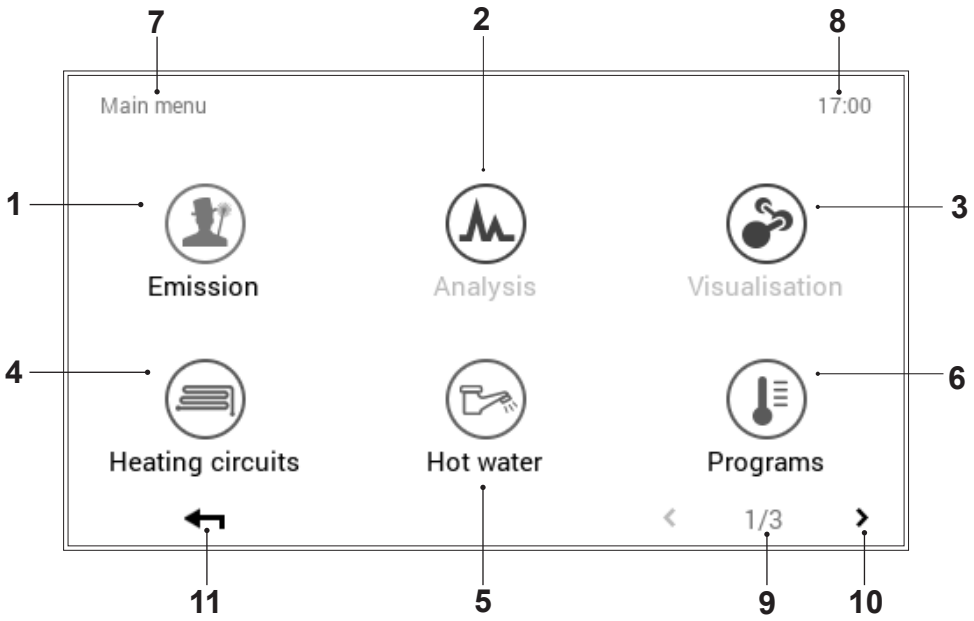
6 A confirmation message is displayed. Confirm this with **OK**. Touch the **Back** (←) button if you want to edit the settings again.



7 The current hot water temperature is displayed on the start screen and goes up or down until the desired water temperature for the absence is reached.

6.12 Other operating elements

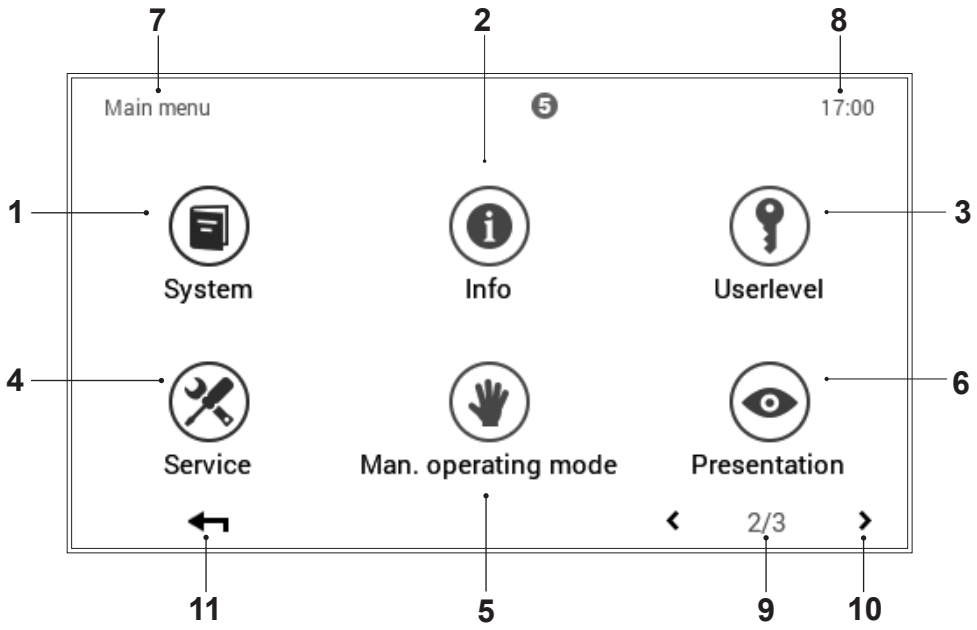
6.12.1 Main menu view 1



No.	Designation	Function
1	**Emission metering**	For heating specialist: setting the emission output limitation
2	**Analysis**	See 6.12.12, page 73
3	**Visualisation**	For heating specialist: not available with all heat generators
4	**Heating circuits**	Display and editing possibility of the selected heating circuit. Depending on the structure of the system, it is possible to select between one or more heating circuits. Information about the active operating and day program (6.12.7, page 68)
5	**Hot water**	Display and editing possibility of the selected hot water circuit. Depending on the structure of the system, it is also possible to select between one or more domestic hot water circuits in the hot water area. Specifications regarding an active operating and day program with adapted hot water temperature (6.11.1, page 55)
6	**Programs**	Menu item for adapting week and day programs in the selected heating or hot water circuit (6.12.6, page 67)
7	**Position in the menu**	Name of the currently selected menu item
8	**Time of day**	Displays the current time.
9	**Page in the main menu**	Display of the active main menu page (1)
10	**Scroll**	Arrow (›) for navigating from main menu page 1 to main menu page 2
11	**Back**	Used as a button (↩) for returning to the start screen.

Individual menu items are active or inactive depending on the type of control module.

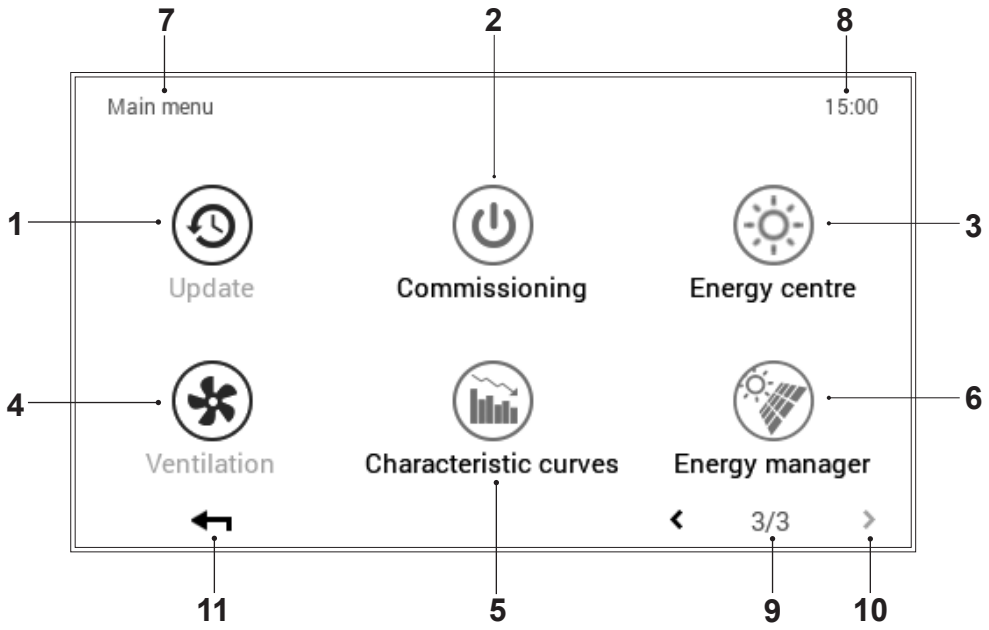
6.12.2 Main menu view 2



No.	Designation	Function
1	**System**	Provides information about maintenance, service and cleaning of the system.
2	**Info**	Display of various information about the system regarding the heat generator, heating circuit, hot water and solar. Bear in mind that a system may include several heat generators and heating or hot water circuits (6.12.8, page 69).
3	**User level / authorisation level**	For heating specialist: Releasing the authorisation level by entering the particular password
4	**Service**	For heating specialist: menu item for making adaptations to system settings
5	**Manual mode**	The heat generators, heating circuits and hot water circuits in the heating system can be operated manually at an adjustable temperature (6.12.11, page 72).
6	**Presentation**	Changing the current language, changing the colour scheme, adapting the start screen as well as various other settings (6.12.12, page 73, 6.12.13, page 74)
7	**Position in the menu**	Name of the currently selected menu item
8	**Time of day**	Displays the current time.
9	**Page in the main menu**	Display of the active main menu page (2)
10	**Scroll**	Arrow (‹ ›) for navigating to main menu page 1 (left arrow) and main menu page 3 (right arrow)
11	**Back**	Used as a button (↩) for returning to the start screen.

Individual menu items are active or inactive depending on the type of control module.

6.12.3 Main menu view 3

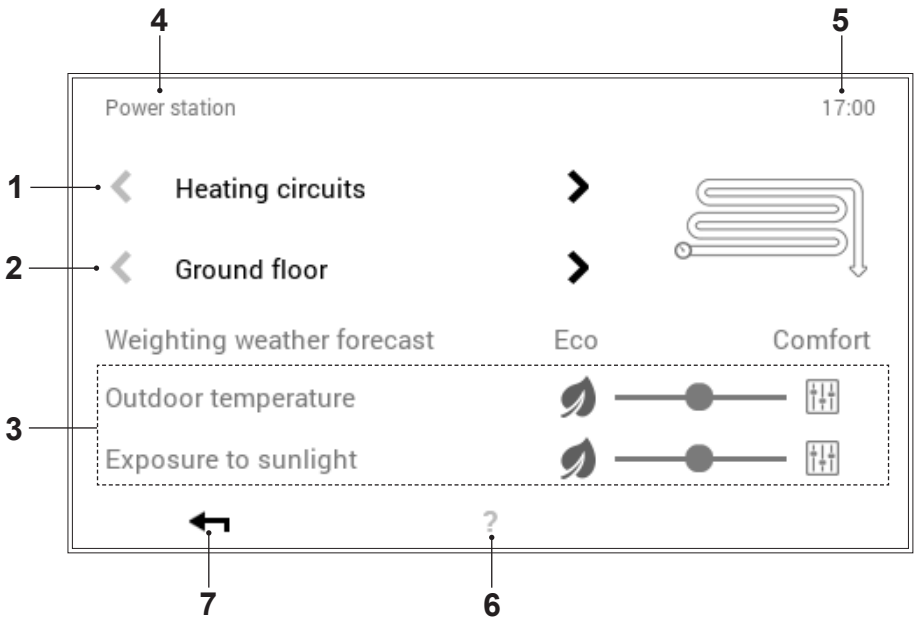


No.	Designation	Function
1	**Update**	Menu item only for heating specialist
2	**Commissioning**	Menu item only for heating specialist
3	**Power station**	Influence of weather forecast on heating. Selection of the heating or hot water circuit to be edited only functions if.
4	**Ventilation**	Only active in connection with a residential ventilation system. (comfort plus)
5	**Heating and cooling characteristic (optional: for heat pumps only)**	The characteristic curves are normally set by the specialist during commissioning of the heating system. They describe the ratio between the installation flow temperature and the current outdoor temperature. When using a room control module, the characteristic curves are automatically optimised by the TopTronic® E.
6	**Energy Manager**	The Energy Manager visualises the power generation and is only active in connection with a photovoltaic system.
7	**Position in the menu**	Name of the currently selected menu item
8	**Time of day**	Displays the current time.
9	**Page in the main menu**	Display of the active main menu page (1)
10	**Scroll**	Arrow (‹) for navigating from main menu page 3 to main menu page 2
11	**Back**	Used as a button (↩) for returning to the start screen.

Individual menu items are active or inactive depending on the type of control module.

6.12.4 Power station

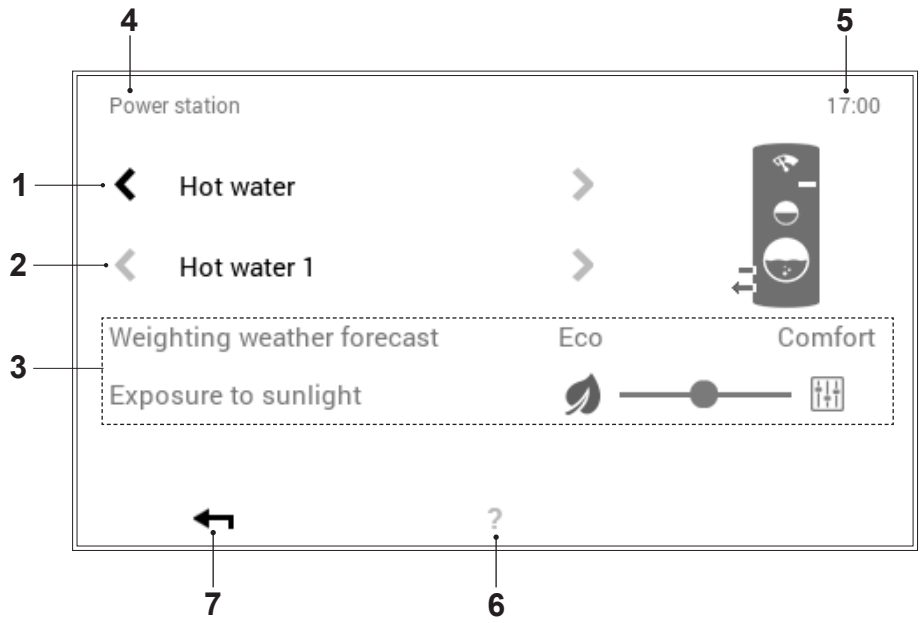
(Main menu / Energy control)



No.	Designation	Function
1	**Heating circuits**	Selection of the heating circuit to be edited.
2	**Circuit selection**	There can be several circuits in the selected heating circuit. If the system contains more than one circuit, this is indicated by the white, active horizontal arrows (‹ ›). If there is only one heating or hot water circuit, the arrows are greyed out.
3	**Eco-Comfort slider Outdoor temperature** **Eco-Comfort slider Exposure to sunlight**	If the slider is moved to “Eco”, the heating control (e.g. for underfloor heating) is influenced by the outdoor temperature forecast in the weather forecast to the greatest possible extent. If the slider is moved to “Eco”, the heating control (e.g. for large, south-facing windows) is influenced by the exposure to sunlight information in the weather forecast to the greatest possible extent. If the slider is moved to **“Comfort”**, the weather forecast is not considered. If the forecast is not received, a deviating “heat output” can be expected!
4	**Position in the menu**	Name of the currently selected menu item
5	**Time of day**	Displays the current time.
6	**Help**	No function is available at present
7	**Back**	Used as a button (↩) for returning to the main menu.

6.12.5 Power station

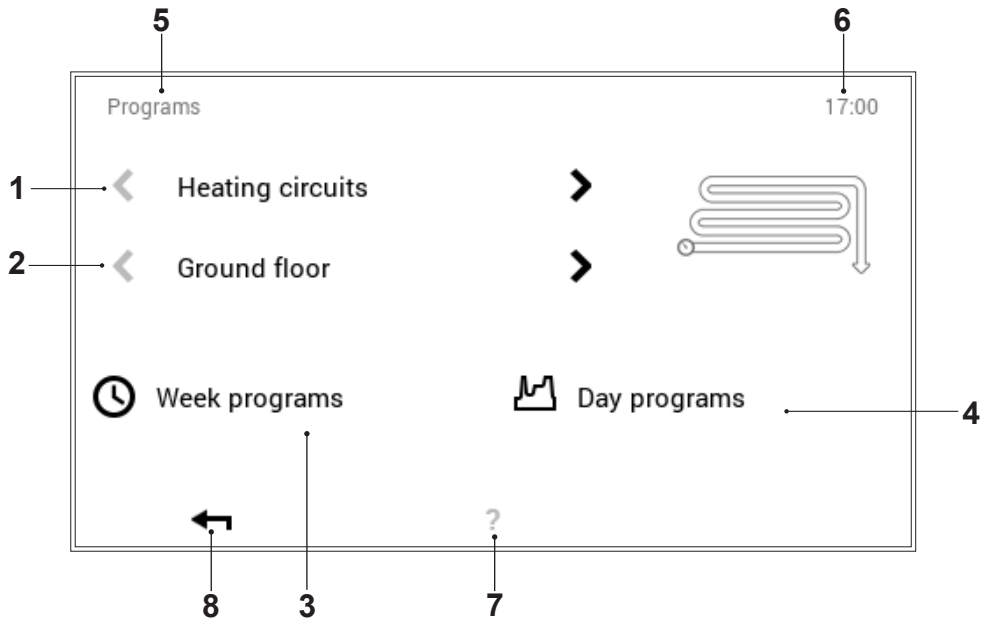
(Main menu / Energy control)



No.	Designation	Function
1	**Hot water circuits**	Selection of the hot water circuit to be edited
2	**Circuit selection**	There can be several circuits in the selected hot water circuit. If the system contains more than one circuit, this is indicated by the white, active horizontal arrows (‹ ›). If there is only one heating or hot water circuit, the arrows are greyed out.
3	**Eco-Comfort slider**	If the slider is moved to **“Eco”**, the heat generator is influenced by the weather forecast to the greatest possible extent, i.e. it reduces the amount of hot water in good weather and increases it in bad weather. If the slider is moved to **“Comfort”**, the weather forecast is not considered. If the forecast is not received, a deviating “heat output” can be expected!
4	**Position in the menu**	Name of the currently selected menu item
5	**Time of day**	Displays the current time.
6	**Help**	No function is available at present
7	**Back**	Used as a button (↩) for returning to the main menu.

6.12.6 Programs

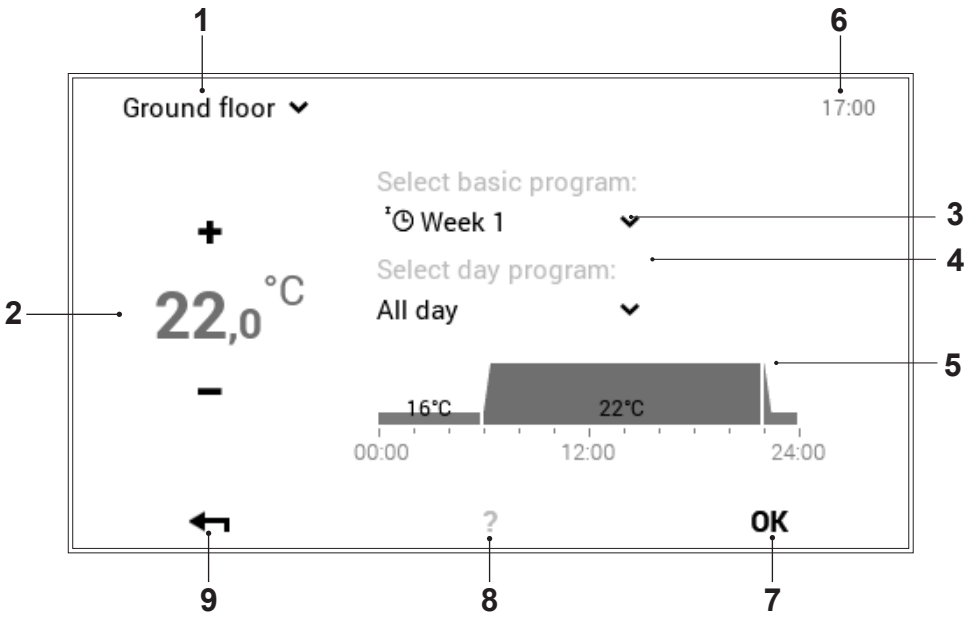
(Main menu / Programs)



No.	Designation	Function
1	**Heating or hot water circuits**	Selection of the heating or hot water circuit to be edited. The room temperature is set in the “Heating circuit” menu, the water temperature is set in the hot water circuit. The horizontal arrows (‹ ›) are used for selecting between the heating or hot water circuit.
2	**Circuit selection**	There can be several circuits in the selected heating or hot water circuit. If the system contains more than one circuit, this is indicated by the white, active horizontal arrows (‹ ›). If there is only one heating or hot water circuit, the arrows are greyed out.
3	**Week programs**	Editing the week programs in the selected heating or hot water circuit. In the week program, a day program can be assigned to the different days of the week, and thus an individual week sequence can be defined (6.9, page 35).
4	**Day programs**	Day programs can be defined by max. six switching cycles per day. Editing the day programs in the selected heating or hot water circuit. The desired room temperature is set in the heating circuit, the desired hot water temperature is set in the hot water circuit (6.10, page 44).
5	**Position in the menu**	Name of the currently selected menu item
6	**Time of day**	Displays the current time.
7	**Help**	No function is available at present
8	**Back**	Used as a button (↩) for returning to the main menu.

6.12.7 Heating circuit

(Main menu / Heating circ.)

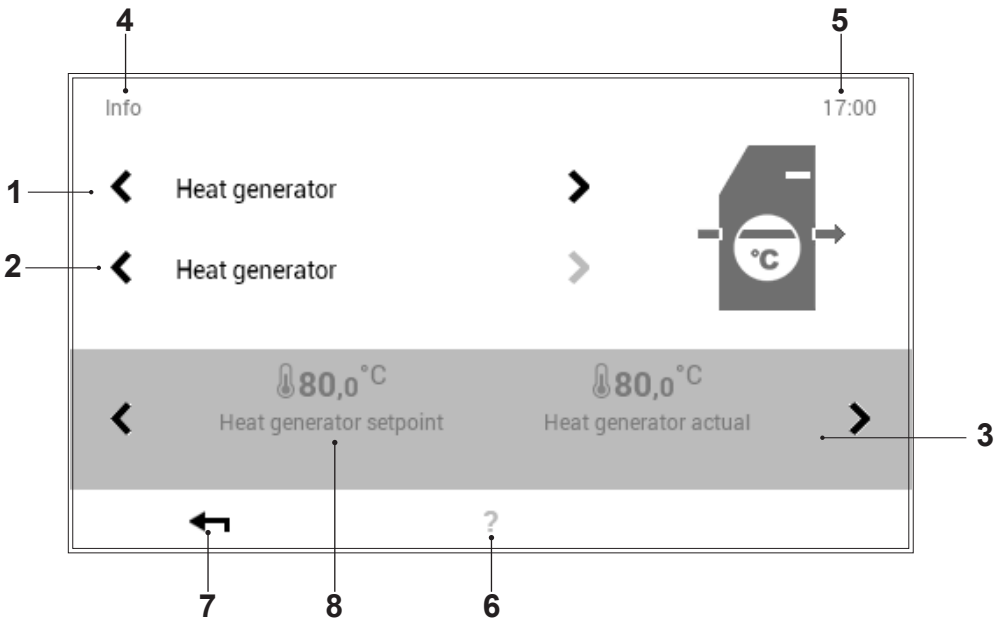


No.	Designation	Function
1	**Active heating circuit**	Display of the heating circuit to be edited. Changed settings are exclusively accepted in the selected heating circuit. Use the down arrow (⌄) to change the heating circuit.
2	**Desired temperature**	Displays the temperature programmed in the switching cycle. The temperature can be changed in the active switching cycle using plus (+) and minus (−).
3	**Basic program**	Selection of the basic program. Use the down arrow (⌄) to select a new program for editing.
4	**Day program**	Use the down arrow (⌄) to change the day program.
5	**Switching cycles**	Graphical display of the currently selected day program with all time cycles and corresponding temperature specifications. The time period marked in yellow shows the currently active cycle in which the desired temperature can be changed with plus (+) and minus (−).
6	**Time of day**	Displays the current time.
7	**OK**	Save (OK) the changes in the selected heating circuit and return to the previous screen
8	**Help**	No function is available at present
9	**Back**	Used as a button (↩) for returning to the main menu.

Temporary settings “Only for today” are not possible in the “Heating circ.” menu item.

6.12.8 Info

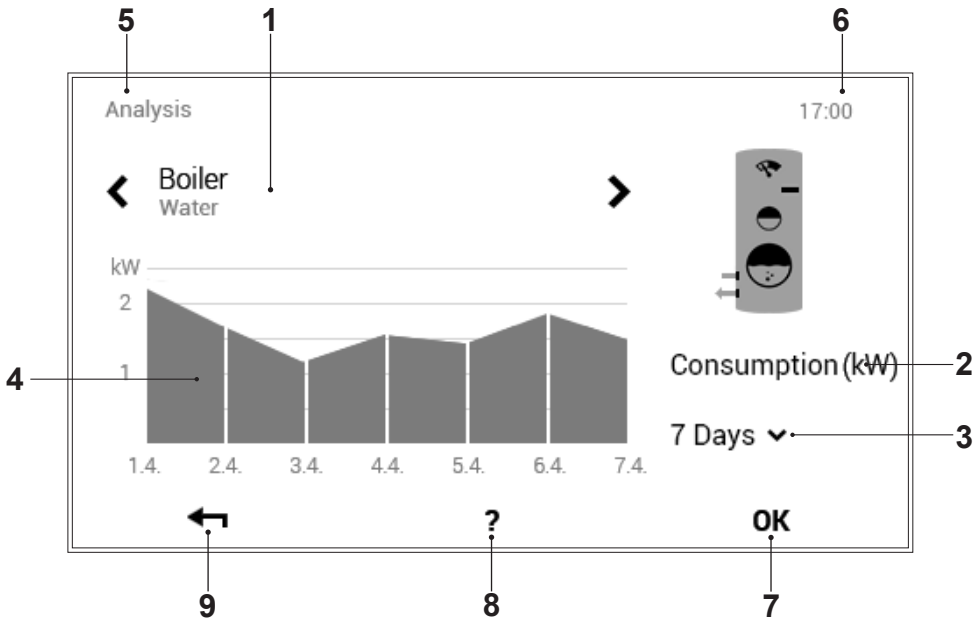
(Main menu / Info)



No.	Designation	Function
1	**Heat generator / heating circuits / hot water**	Selection of the system part. It is possible to switch between the heat generator, the heating circuit and the hot water area using the horizontal arrows (‹ ›).
2	**Detailed selection**	Selection of the desired heat generator, heating circuit or hot water circuit. If the system contains several circuits, this is indicated by the white, active horizontal arrows (‹ ›).
3	**Information**	Information about the selected system area. Additional output information can be displayed on the screen using the horizontal arrows (‹ ›).
4	**Position in the menu**	Name of the currently selected menu item
5	**Time of day**	Displays the current time.
6	**Help**	No function is available at present
7	**Back**	Used as a button (↩) for returning to the main menu.
8	**Heat generator setpoint**	With heat pumps: Under certain circumstances, at very low outside temperatures, it will not be possible to reach the required domestic hot water temperature or room temperature (the reference value is changed by the machine so that there will not be a fault cut-out).

6.12.9 Analysis

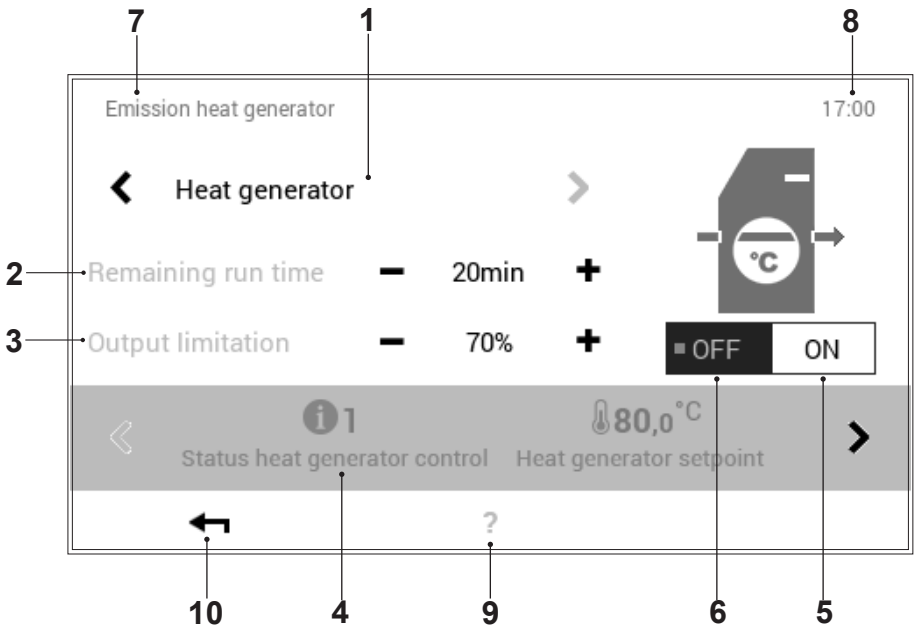
(Main menu / Analysis)



No.	Designation	Function
1	**Heat generator / heating circuits / hot water**	Selection of the area to be analysed. It is possible to select between the heat generator, the heating circuit and the hot water area using the horizontal arrows (‹ ›).
2	**Measuring parameter**	Display of the recorded measuring parameter
3	**Selection duration**	Use the down arrow (⌄) to select the required duration.
4	**Analysis / graphic**	Display of the measuring parameter of the selected heat generator, heating circuit or hot water in the desired duration
5	**Position in the menu**	Name of the currently selected menu item
6	**Time of day**	Displays the current time.
7	**OK**	Save (OK) the changes in the selected heating circuit and return to the previous screen
8	**Help**	No function is available at present
9	**Back**	Used as a button (↩) for returning to the main menu.

6.12.10 Emission - only for heating specialist

(Main menu / Emission (not in with Heat pumps))

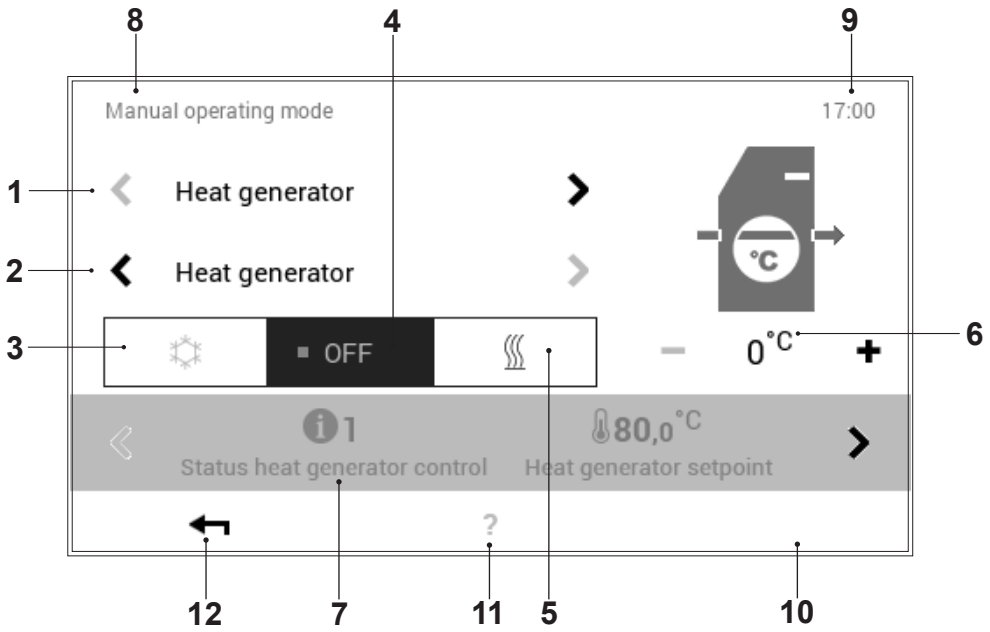


No.	Designation	Function
1	**Selection heat generator**	Display of the heat generators present in the heating system. The horizontal arrows (‹ ›) are used for selecting the required heat generator.
2	**Time**	Duration of emission measurement. Setting the required time with plus (+) and minus (−), i.e. to be defined by the heating specialist before the start of the measurement. The heat generator is switched off after the time has elapsed.
3	**Power limitation**	Entry of the required power limitation. Regulation of the required power limitation by plus (+) and minus (−).
4	**System information**	Information about the system in the selected heat generator. Additional information can be displayed with the horizontal arrows (‹ ›).
5	**ON**	Switching on the heat generator
6	**OFF**	Switching off the heat generator
7	**Position in the menu**	Name of the currently selected menu item
8	**Time of day**	Displays the current time.
9	**Help**	No function is available at present
10	**Back**	Used as a button (↩) for returning to the main menu.

The emission measurement is automatically deactivated when the “Emission” menu item is exited!

6.12.11 Manual operation

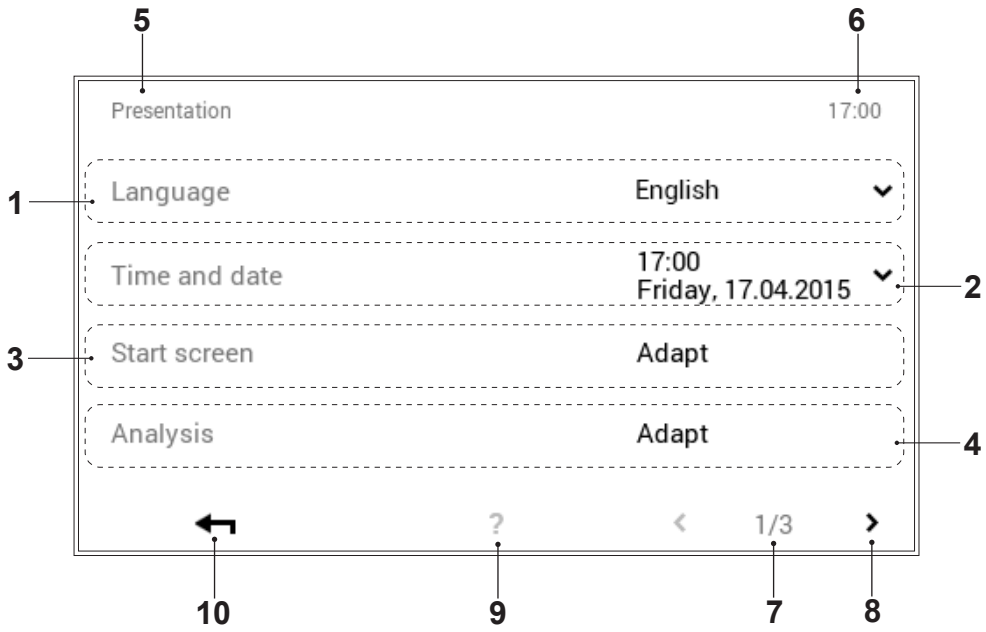
(Main menu / Manual operating mode)



No.	Designation	Function
1	**Heat generator / heating circuits**	The control permits individual manual operation, i.e. manual operation can be activated on any heat generator and heating circuit that is present.
2	**Detailed selection**	Selection of the desired heat generator or heating circuit. The system can include several heat generators and heating circuits. If there is more than one heat generator/circuit, the horizontal arrows (‹ ›) are shown in white. If there is only one heating or hot water circuit available for selection, the arrows are greyed out and cannot be selected.
3	**Cooling**	Activation of cooling operation (if possible in the system)
4	**OFF**	Switch off active manual operation. The system switches over to automatic operation.
5	**Heating**	Activate “Heating” manual operation
6	**Temperature**	Display of the desired temperature. The temperature can be changed using plus (+) and minus (−).
7	**Information**	Information about the selected manual operation. Additional information can be displayed on the screen with the horizontal arrows (‹ ›).
8	**Position in the menu**	Name of the currently selected menu item
9	**Time of day**	Displays the current time.
10	**OK**	Save (OK) the changes in the selected heating circuit and return to the previous screen
11	**Help**	No function is available at present
12	**Back**	Used as a button (↩) for returning to the main menu.

6.12.12 Presentation 1

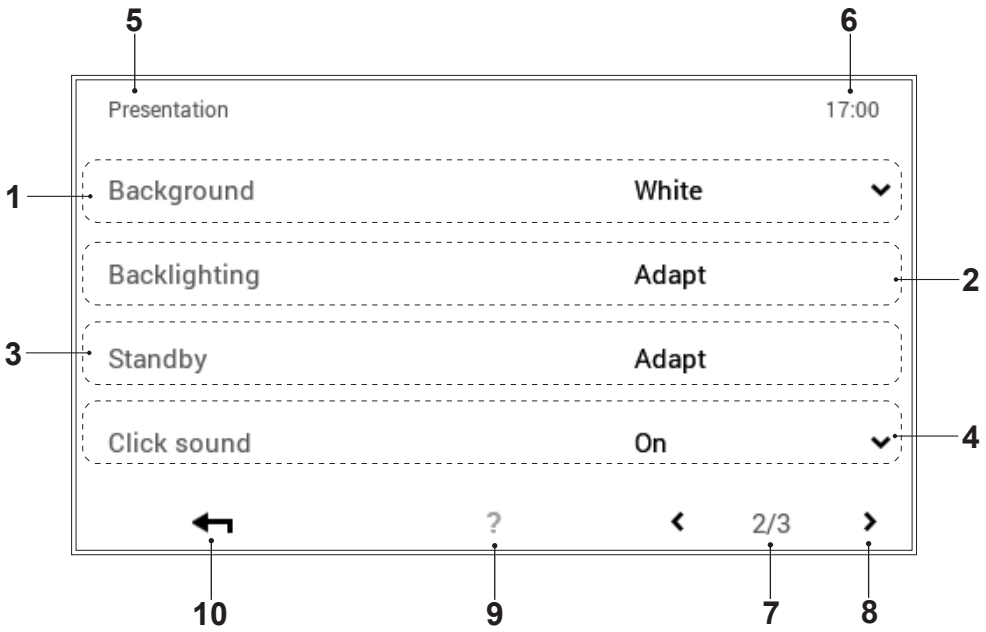
(Main menu / Presentation)



No.	Designation	Function
1	**Language**	Selection of the desired language. The active language can be selected with the down arrow (⌄).
2	**Time & date**	Changing the current date and time
3	**Start screen** **Changing the start screen**	Selection of the display elements you want on the start screen. Select the “Adapt” button to make adaptations to the start screen. To change the desired «Start screen», see 6.6.2, page 23.
4	**Analysis**	Setting of the values to be recorded (analysis).
5	**Position in the menu**	Name of the currently selected menu item
6	**Time of day**	Displays the current time.
7	**Page in the menu**	Display of the active menu page (1). Menu page 3 only for heating specialist.
8	**Scroll**	Arrow (›) for navigating from menu page 1 to page 2
9	**Help**	No function is available at present
10	**Back**	Used as a button (↩) for returning to the main menu.

6.12.13 Presentation 2

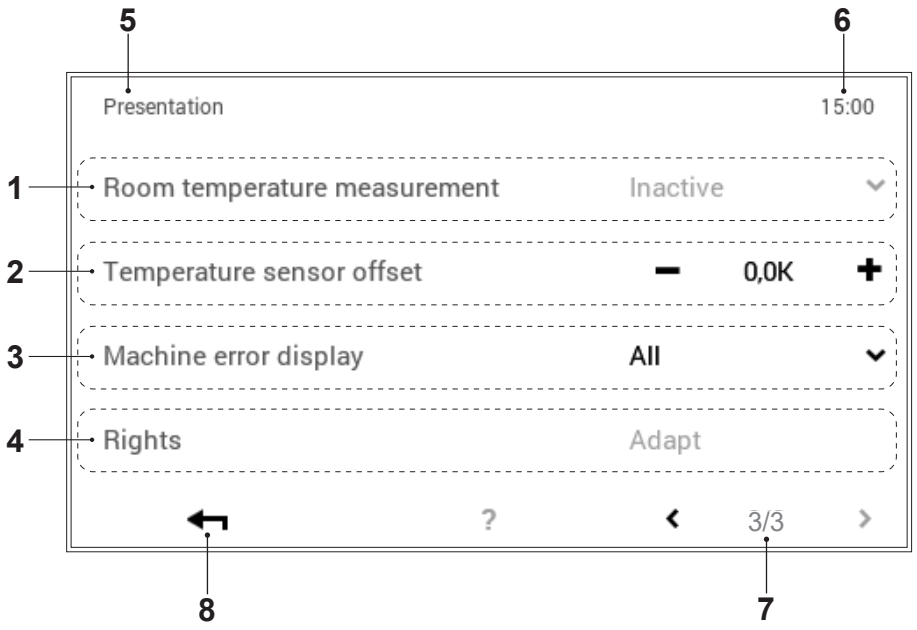
(Main menu / Presentation)



No.	Designation	Function
1	**Background**	Adaptation of the colour scheme of the control. The arrow key (⌄) can be used for selecting between a black and a white background.
2	**Backlighting**	Adaptation of the current display mode, time until the screen is darkened as well as percentage specification for maximum and minimum screen brightness.
3	**Standby**	Standby behaviour Screen with active standby modus. Depending on the selection, when the screen enters standby mode, it switches to the start screen, to the “Visualisation” main menu item or to sleep mode (black screen). Selecting “No standby” means that standby mode is deactivated. Duration until standby Entry of the required number of minutes until the control enters standby mode. The number of minutes can be changed with plus (+) and minus (−). To deactivate standby mode, it is necessary for “No standby” to be selected in the “Standby behaviour” menu item (no. 4). Sleep mode at night When it is dark, the touchscreen automatically switches to sleep mode, i.e. the screen switches itself off and is reactivated when daylight returns. Operation lock of the screen: For activation/deactivation of the operation lock, a sequence of numbers (freely selectable - keep in a safe place) must be entered. After entry, touch the “Confirm operation lock” message to activate it.
4	**Click sound**	Can be switched on/off
5	**Position in the menu**	Name of the currently selected menu item.
6	**Time of day**	Displays the current time.
7	**Page in the menu**	Display of the active menu page (2).
8	**Scroll**	Arrow (‹) for navigating from menu page 2 to page 1.
9	**Help**	No function is available at present.
10	**Back**	Used as a button (↩) for returning to the main menu.

6.12.14 Presentation 3

(Main menu / Presentation)



No.	Designation	Function
1	**Room temperature measurement**	Can only be adjusted by the specialist
2	**Temperature sensor offset**	For the heating technician only
3	**Machine error display**	For the heating technician only
4	**Permissions**	Can only be adjusted by the specialist
5	**Position in the menu**	Name of the currently selected menu item.
6	**Time of day**	Displays the current time.
7	**Page in the menu**	Display of the active menu page (3).
8	**Back**	Used as a button (↩) for returning to the main menu.

6.13 Further settings

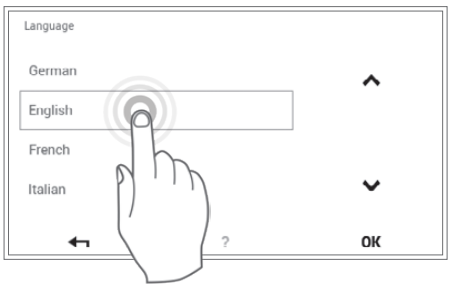
6.13.1 Set/change WiFi password

If there is a change of provider (Internet service provider), the WiFi password must be re-entered so that the system will connect to the Internet again. The WiFi logon can be carried out on any operating module.

You will find a video tutorial under the following online link, which explains how to enter a new password.
- Alternatively, you can also scan the QR code to access the video!

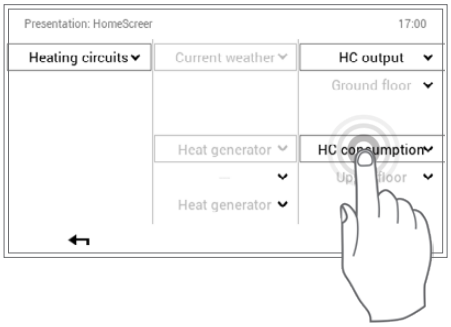
https://youtu.be/sATBGdIpnSw

6.13.2 Setting the language



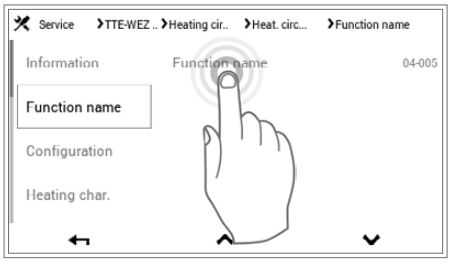
The language of the control can be changed at **Start screen > Main menu (⚙) > Presentation > Language** (6.12.12, page 73, no. 1).

6.13.3 Adapt start screen individually



The elements of the start screen can be individually adapted at **Start screen > Main menu (⚙) > Presentation > Start screen** (6.12.12, page 73, no. 5).

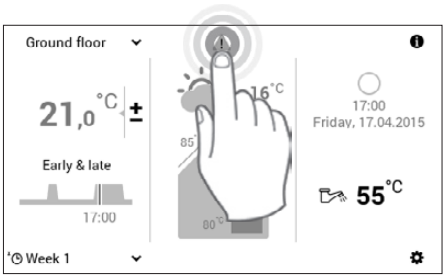
6.13.4 Rename heating circuit



You can give a name to your heating circuit at **Start screen > Main menu > Service > TTE-WEZ > Heating circ. > Select heating circuit > Function name (⌃⌄) > Select function name > Select heating circuit > Keyboard inputs**. Bear in mind that your system can include one or more heating circuits.

7. Alarm messages

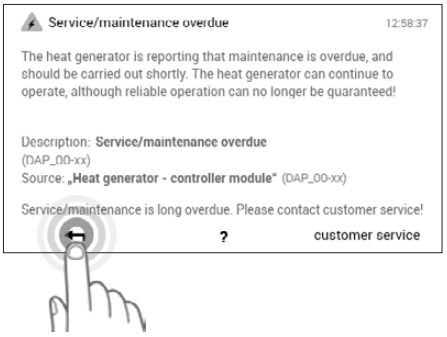
7.1 Display alarm message



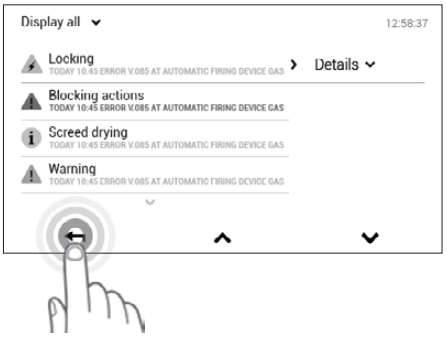
1 Touch the displayed **alarm message icon** to select it.

2 Touch **Details** (⌄) to select it.

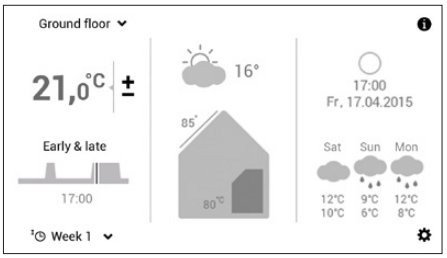
Use the **Display All** (⌄) button at the top left of the screen to select all prior alarm messages by category (information, warning, etc.).



3 A detailed alarm message appears. The message contains detailed information about the malfunction. Use **Back** (⮌) to close the alarm message view.



4 Select Back (⮌) again to close the **alarm message overview**.



5 Once the malfunction has been rectified, the alarm message icon is no longer displayed in the start screen.

If alarm messages cannot be rectified using the information displayed on the control module, contact Hoval customer service.

7.2 Instructions in the event of faults

1. If the heat generator does not start check if the blocking switch is set to “I”.
2. For resetting the fault, see below (point 7.3).
3. Pressing the alarm message icon allows the alarm messages to be requested (see also points Pkt. 7.1 and 6.6.1).

7.3 Resetting the faults

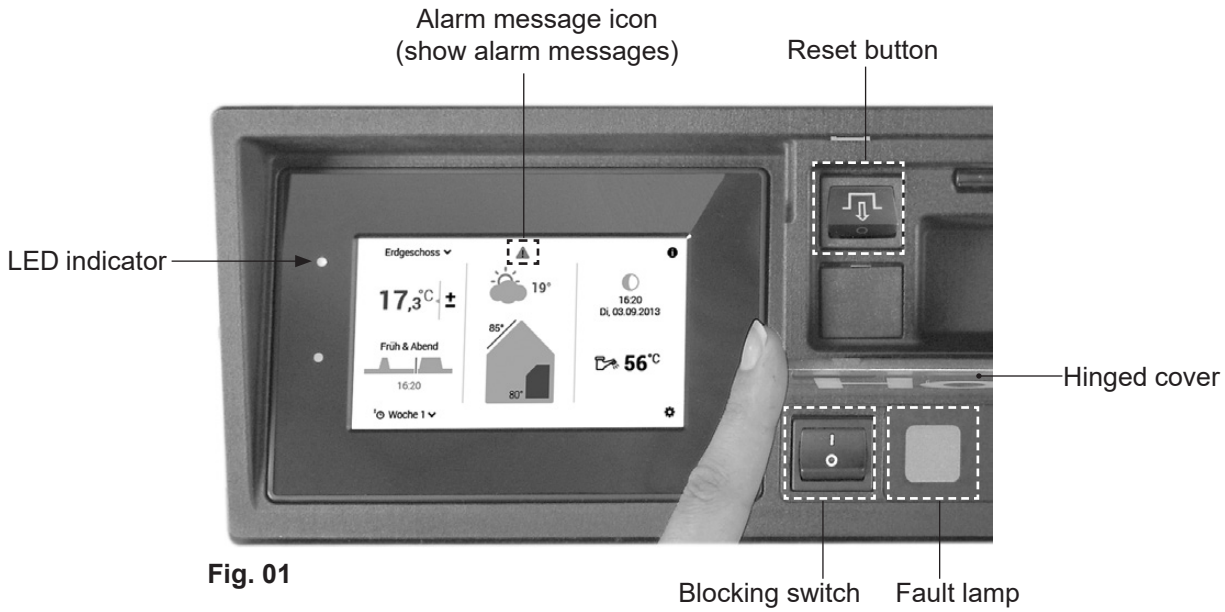


Fig. 01

Faults can be recognised by the alarm message icon and/or by a red-orange flashing LED indicator to the left of the operating field (see also point 6.6.1, page 21, Pos. 6).
If, in addition, the fault lamp next to the blocking switch lights up, the heating operation was stopped. The fault can be acknowledged by pressing the reset button.

The reset button is allowed to be pressed once at most.
If the failure indication lamp continues to be lit, please contact Hoval Customer Service.

1. Open the Hinged cover (Fig. 01) on the right of the control panel.
2. Press the reset button for 3 seconds. If the fault lamp goes out, the heat generator carries out a start attempt. If the fault lamp does not go out or lights up again after the start attempt, please contact Hoval Customer Service.

7.4 Control related fault messages

You can deal with the fault messages listed below yourself, with the help of the description. If a fault message appears on your TopTronic® E control module that is not listed below, please contact Hoval customer service.

Fault/cause	Remedy
⚠ **Warning** Operating pressure (water pressure) too low (W:01) - If the operating pressure drops below 1 bar, a warning is output and the boiler output is reduced to 50 %. The heat generator can continue to operate.	Contact a heating installer to have the heating system topped up with replacement water. - Regarding the required water composition, see the “Water quality in heating systems” chapter of the UltraGas® 2 installation instructions
⚠ **Blocking** Operating pressure (water pressure) outside the limits (B:05) - If the operating pressure is below 0.5 bar, heating operation is not possible and a fault is present.	Contact a heating installer to have the heating system topped up with replacement water. - Regarding the required water composition, see the “Water quality in heating systems” chapter of the UltraGas® 2 installation instructions

7.5 Checklist in the event of faults

Fault	Inspection/cause	Remedy
Gas boiler does not start	- Is power supply present?	- Check fuses. - Turn on the main switch.
	- Is the gas shut-off valve open?	- Open the gas shut-off valve.
	- Is the red fault indicator lit on the right next to the control module?	- See chapter 7.3, page 78. - Call Hoval customer service.
	- Is fuel gas available?	- Contact the gas company.
	- Operating pressure too low or too high	- Top up with replacement water or drain water as necessary.
Radiators or underfloor heating do not become warm	- Are the shut-off valves in the flow and return open?	- Open shut-off valves in the flow and return.
	- Is the blocking switch in position “0”?	- Change over the blocking switch.
	- Have the switching cycles of the TopTronic® E been set correctly?	- Check the switching cycles with reference to the operating instructions of the heating control.
	- Check the operating pressure (water pressure).	- Top up the heating system with replacement water and vent the heat generator.
	- Are the radiator valves open?	- Open the radiator valves.
	- The heating circulating pump is not running.	- Unscrew locking screw. - Turn end of shaft vigorously with a screwdriver until there is no longer resistance.
	- Mixing valve does not open automatically.	- Set the mixing valve to manual operation; open by hand. - Call Hoval customer service.
No hot water	- The charging pump is not running.	- Unscrew locking screw. - Turn end of shaft vigorously with a screwdriver until there is no longer resistance.
	- Is there air in the charging pipe?	- Possibly vent manually. - Operate automatic air vent by hand.

Please use the above checklist when carrying out the checks in the case of malfunctions. If you are not able to resolve the fault, please contact the heating specialist or Hoval customer service.

8. Maintenance and inspection (heating system)

The work described below is normally performed by the heating specialist in the course of annual maintenance. Nevertheless, carry out the following checks during the year and perform the work described as necessary.

In order for heating to work properly, the operating pressure (water pressure in the heating system during operation) must be within a certain range.

- If the operating pressure drops below 1 bar, a warning is output and the boiler output is reduced to 50 %.
- If the operating pressure is below 0.5 bar, heating operation is not possible and a fault is present.

8.1 Check the operating pressure

1. Read off the operating pressure on the pressure gauge (installed externally).

Fig. 02

- Setpoint, see “Calculated operating pressure” in chapter 1.3, page 6.

2. If the operating pressure is lower than 1 bar, notify the heating specialist to top up replacement water.

NOTICE

Danger of corrosion

Danger of corrosion due to frequent topping up (more than 1 x/year).

- Contact a heating installer to have the heating system topped up.

8.2 Replenishing replacement water

NOTICE

Filling and replacement water

The heating system can be damaged by improper procedures during filling.

- Proceed professionally when refilling and topping up.
- The filling and replacement water must be of the required water quality (see the “Water quality” chapter in the installation instructions).
- If frost protection agent is being used, a separate engineering sheet is available from Hoval.

Country-specific regulations and manufacturer-specific specifications for replacement water must be observed (see the “Water quality in heating systems” chapter in the UltraGas® 2 installation instructions).

Replenish replacement water if the operating pressure drops below 1 bar.

1. Set the blocking switch to “0” and disconnect the heat generator from the mains (e.g. main switch, fuses).
2. Connect the filling hose to the water treatment unit.
3. Deaerate the filling hose.
4. Connect the filling hose to the filling/drain valve of the heat generator.
5. Slowly fill the heat generator until the calculated operating pressure is displayed on the pressure gauge.
6. Close the water treatment unit and the filling/drain valve.
7. If no automatic air vent is available, vent the heat generator using a manual air vent.
8. Check the water connections for leakage.
9. Check the operating pressure again.
10. Unscrew the filling hose again after filling.
11. Switch the heat generator back on.

9. Saving energy

9.1 Specific steps for saving energy

With only a few simple measures, you can

Save energy on a sustainable basis

Cut energy costs

Protect the environment.

It's easy! Just bear in mind the following tips:

- **Set the room temperature and the heating times independently!**
  Adapt the heating times and room temperatures according to when you will be present and absent (6.10.3, page 46 and 6.8.2, page 33). A temperature reduction of only 1 °C can save 6% of your energy costs.

- **Correct ventilation**
  Ventilate every three to four hours for a few minutes with the window full open, preferably with a through draft. Avoid leaving the windows tilted open when it is cold outside! Correct heating and ventilation also help to prevent mildew forming. Ventilation is not necessary if you are using a domestic ventilation unit.

- **Close roller blinds and shutters at night**
  Keep the roller blinds and shutters on doors and windows closed at night to reduce energy losses.
  If necessary, seal gaps and cracks at windows and doors.

- **Do not obstruct radiators**
  Avoid placing furniture in front of radiators. Also avoid closing curtains during the day. At night, on the other hand, they can have an insulating effect.
  Furthermore, avoid drying damp laundry directly on the radiators. The heat generated by the radiators cannot get into the room in the first place and the hot water is merely circulated.

- **Reduce the room temperature at night**
  Save energy while you sleep by reducing the room temperature at night. The room should not cool down excessively, though. This increases the energy required to reheat it, and pipes could freeze.

- **Set the domestic hot water temperature**
  Set the domestic hot water temperature as low as possible. Aim for temperatures between 45 °C and 60 °C. Remember to activate the legionella function once a week in the week programme (6.11.6, page 58).

- **Take a shower rather than a bath**
  A bath consumes about three times as much energy and water as a shower.

- **Regular maintenance**
  Have your heating system regularly cleaned and checked by a specialist. We therefore recommend that you conclude a service contract with your Hoval customer service department. Bleed the radiators if you hear noises coming from the pipework or if the radiators do not achieve an even temperature.

10. Disposal

10.1 Disposal instructions

After the end of the service life, the individual system components must be disposed of correctly. Please contact a specialist heating installation company regarding recycling your heating system.

Decommissioning and dismantling must be performed by a gas appliance specialist.
Decommissioning must be carried out according to the “Decommissioning” chapter of the UltraGas® 2 installation instructions.

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