▮Vaillant

For the operator

Operating instructions

Weather compensator

VRC 700/4

GB, IE

▮Vaillant

Contents

1 Safety

1.1 Action-related warnings

Classification of action-related warnings

The action-related warnings are classified in accordance with the severity of the possible danger using the following warning signs and signal words:

Warning symbols and signal words

Danger!
Imminent danger to life or risk of severe personal injury

Danger!
Risk of death from electric shock

Warning.
Risk of minor personal injury

Caution.
Risk of material or environmental damage

1.2 Intended use

In the event of inappropriate or improper use, damage to the product and other property may arise.

The product is intended for using an eBUS interface to control a heating installation with heat generators from the same manufacturer.

Intended use includes the following:

– observance of the operating instructions included for the product and any other system components
– compliance with all inspection and maintenance conditions listed in the instructions.

Any other use that is not specified in these instructions, or use beyond that specified in this document shall be considered improper use. Any direct commercial or industrial use is also deemed to be improper.

Caution.

Improper use of any kind is prohibited.

1.3 General safety information

1.3.1 Danger caused by improper operation

Improper operation may present a danger to you and others, and cause material damage.

▸ Carefully read the enclosed instructions and all other applicable documents, particularly the "Safety" section and the warnings.
▸ Only carry out the activities for which instructions are provided in these operating instructions.

1.3.2 Moisture and mould damage due to inadequate exchange of air

In heavily insulated rooms that only allow a small exchange of air, moisture and mould damage may occur.

▸ Ventilate the rooms regularly by opening windows and activate the **Ventilation boost** function once to save energy.

Conditions: Ventilation unit is connected

▸ Do not disconnect the ventilation unit from the power mains.
▸ Clean and service the ventilation unit in accordance with the instructions for the ventilation unit.

2 Notes on the documentation

2.1 Observing other applicable documents

▶ You must observe all operating instructions enclosed with the system components.

2.2 Storing documents

▶ Keep this manual and all other applicable documents safe for future use.

2.3 Applicability of the instructions

These instructions apply only to:

VRC 700/4 – Article number

Great Britain	0020184838

2.4 Nomenclature

The following terms are used for simplification:

– Control: If this refers to the **VRC 700** control.
– Remote control: If this refers to the **VR 91** remote control.
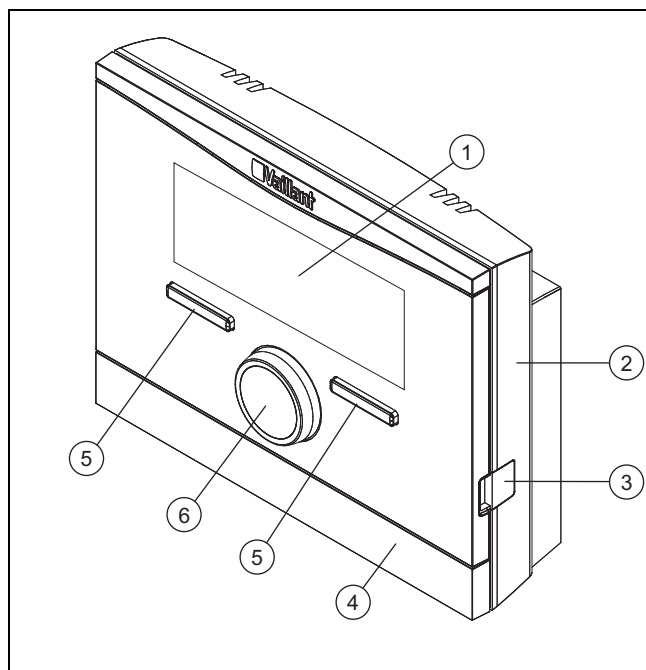
2.5 Function availability

> **i** **Note**
> The functions described in these operating instructions are not available for all system configurations.

The controller only shows the functions that are available in the system configuration you have installed.

3 Product description

3.1 Design of the product

1	Display	3	Diagnostics socket
2	Wall-mounting base		

4 | Wall-mounting base cover | 5 | Selection button |
| | | 6 | Rotary knob |

3.2 Main function

The control is a weather compensator with an outdoor temperature sensor that is fitted in the open air.

The control is connected to the outdoor temperature sensor and the heat generator. The control controls the heating installation and other connected components, e.g. the domestic hot water generation for a connected domestic hot water cylinder or the ventilation of a connected ventilation unit.

3.2.1 Heating

The outdoor temperature sensor measures the outdoor temperature and forwards the values to the control. When the outside temperature is low, the controller increases the flow temperature of the heating installation. If the outdoor temperature increases, the control reduces the flow temperature. The control responds to the fluctuations in the outdoor temperature and uses the flow temperature to ensure that the room temperature remains at the required temperature.

3.2.2 Cooling

The room temperature sensor measures the room temperature and sends the data to the controller. If the room temperature is higher than the desired temperature that is set, the controller switches cooling on.

3.2.3 Ventilation

Using a controlled exchange of air, the ventilation unit ensures that the living rooms are ventilated and aerated. The control controls the air volume flow via the ventilation levels that are set.

3.2.4 Hot water generation

A temperature sensor measures the temperature of the water in the domestic hot water cylinder and forwards the values to the control. At a low domestic hot water temperature, the control increases the temperature in the domestic hot water circuit and thus heats the water in the domestic hot water cylinder to the set domestic hot water temperature.

3.2.5 Circulation

If a circulation pump is installed in the heating installation, the draw-off points will provide hot water more quickly. The circulation pump pumps hot water through the secondary return pipes in the circuit and to the draw-off points.

3.3 Zones

A building is divided into several zones if the heat demand differs between different sections of the building.

– If underfloor heating and radiator heating are installed in a house.
– If a house contains more than one independent residential unit.

If more than one zone is available, the controller controls the available zones.

3.4 Hybrid manager

If you have connected a heat pump, the hybrid manager attempts to cover the declared energy requirement under the considerations of the cost optimisation and the technical conditions.

i **Note**
To ensure that the heat pump and the boiler can work effectively and in synch with one another, the tariffs (→ Page 14) must be set correctly. If the tariffs are set incorrectly, this may result in increased costs.

If the system declares an energy requirement, the hybrid manager switches on and forwards the energy requirement to the heat generator. The hybrid manager decides which heat generator to operate based on the tariffs that are set in relation to the energy requirement.

3.5 Frost protection function

The frost protection function protects the heating system and apartment from frost damage. The frost protection function monitors the outside temperature.

If the outside temperature

– falls below 4 °C, the controller switches the heat generator on after a frost protection delay time, and brings the target room temperature to 5 °C.
– rises above 5 °C, the controller does not switch the heat generator on but monitors the outside temperature.

i **Note**
The competent person can set the frost protection delay time.

3.6 Preventing malfunctions

▶ Ensure that air can circulate freely around the controller, and that the controller is not covered by furniture, curtains or other objects.
▶ Ensure that all radiator valves in the room where the controller is fitted are fully open.

3.7 Identification plate

The identification plate is located inside the product and is not accessible from the outside.

3.8 Serial number

You can call up the serial number to the display under **Menu → Information → Serial number**. The 10-digit article number is located in the second line.

3.9 CE label

The CE label shows that the products comply with the basic requirements of the applicable directives as stated on the identification plate.

The declaration of conformity can be viewed at the manufacturer's site.

4 Operation

4.1 Operating structure

4.1.1 Adjustment and display levels

The product has two adjustment and display levels.

The end user level contains information and setting options that you require as the end user.

The installer level is reserved for the competent person. It is protected by a code. Only competent persons may change any settings in the installer level.

Operating levels (→ Page 19)

4.1.2 Menu structure design

The menu structure consists of several selection levels and a setting level.

You can always use the selection button **Menu** to access selection level 1 from the basic display.

You can use the selection button **Op. mode** to directly access the setting level **Operating mode**.

The lowest level is always the setting level.

4.1.3 Selection level
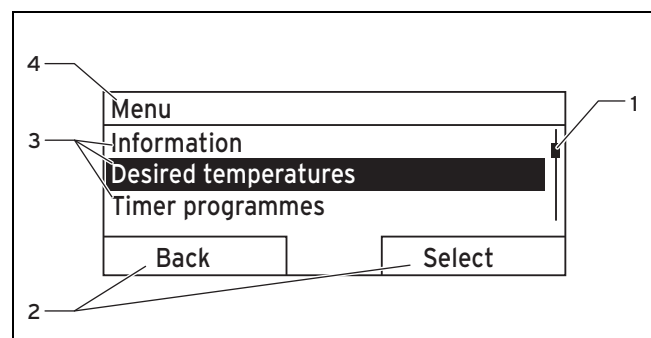
| 1 | Scroll bar | 3 | Selection level list entries |
| 2 | Current functions of the selection buttons | 4 | Current function or selection level |

4 Operation

The scroll bar **(1)** only appears if there are more list entries than can be shown at once on the display.

4.1.4 Setting level
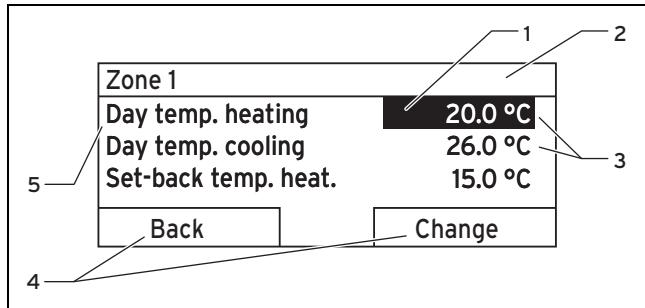
1	Current selection	4	Current functions of the
2	Current selection level		selection buttons
3	Values	5	Setting level

In the setting level, you can select the values you want to read or change.

4.1.5 Soft key function for the selection buttons

Both selection buttons have a soft key function, i.e. different functions may be assigned to the selection buttons. If, for example, you press the left-hand selection button, the current function switches from **Menu** to **Back**.

4.2 Basic display
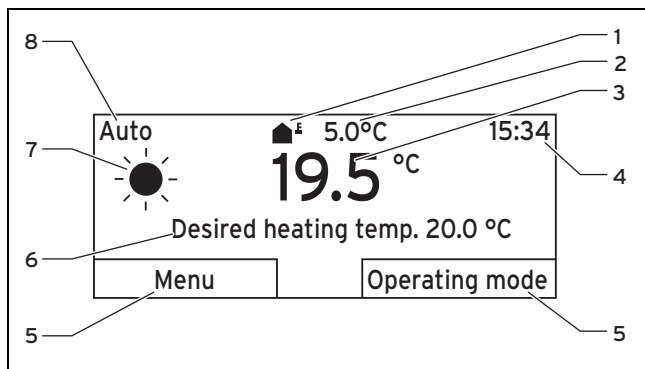
1	Symbol for outdoor temperature	5	Function of the selection buttons
2	Outside temperature	6	Desired setting
3	Room temperature (for wall-mounting only)	7	Symbol for **Auto** operating mode
4	Time	8	Mode for the current operating mode

The basic display appears:

– Depending on which level you are in, you must press the left-hand selection button several times.
– If you do not operate the control for more than five minutes.

4.2.1 Preferred zone in the basic display

If your heating installation has several zones, the competent person sets the zone whose values are to appear in the basic display.

4.2.2 Preferred operating mode in the basic display

If your heating installation is designed for two of the three operating modes (heating, cooling or ventilating), you can switch the basic display to the required operating mode. Depending on the selected operating mode and the mode in which the operating mode is found, various information may appear in the basic display.

4.2.3 Information in the basic display

The basic display shows the most important current settings and values for the heating installation.

Various information may appear in the basic display. It depends on which operating mode you select and which settings you have implemented for the selected operating mode.

4.2.3.1 Basic display for the Heating operating mode

Mode	Time periods	Symbol	Desired setting
Auto	On	☀	**Desired heating temp. appears:**
	Off	☾	– The control maintains the temperature at the desired level.
Day			**Empty line appears:**
Set-back			– The control does not request any heating energy.
off			Empty line

4.2.3.2 Basic display for the Cooling operating mode

Mode	Time periods	Symbol	Desired setting
Auto	On	☀	**Desired cooling temp.**
	Off	☾	Empty line
Day			**Desired cooling temp.**
off			Empty line

4.2.3.3 Basic display for the Ventilation operating mode

Mode	Time periods	Symbol	Desired setting
Auto	On	☀	**Max. vent. stage**
	Off	☾	**Max. vent. stage**
Day			**Ventilation stage**
Set-back			**Ventilation stage**

4.2.3.4 Basic display for the Manual cooling advanced function

Mode	Time periods	Desired setting
Activated	On	**Desired cooling temp.**
	Off	Empty line

4.3 Operating concept

The controller is operated using two selection buttons and a rotary knob.

You can use the selection buttons to do the following:

– Navigate through the selection levels and the setting level in the menu structure.
– Select a set value.
– Confirm a set value.
– Navigate to the operating modes.
– Cancel the change to a set value.

You can use the rotary knob to do the following:

– Navigate through the list entries for a selection level.
– Select a selection level or setting level.
– Change a selected set value.

The display shows an element that is highlighted by white writing on a black background. A flashing, highlighted value means that you can change the value.

If you do not operate the controller during a period of more than 5 minutes, the basic display appears again.

4.3.1 Using the rotary knob to make settings in the basic display

If the display shows the basic display, you can use the rotary knob to change the desired setting.

The setting that you change depends on the selected basic display, operating mode and the set mode for the operating mode.

4.3.1.1 Changing the desired setting in the Heating operating mode

```
         Desired day temperature
         Only today: 18 °C
         For long-term change,
             press OK


                                    OK
```

Mode	Time periods	Effect
Auto	On	Switch to another display view with the request: – Permanent change to the **Day temp. heating** – Change to the **Day temp. heating** for six hours
	Off	Direct change to the **Set-back temp. heat.** for six hours

Mode	Time periods	Effect
Day		Switch to another display view with the request: – Permanent change to the **Day temp. heating** – Change to the **Day temp. heating** for six hours
Set-back		Direct change to the **Set-back temp. heat.** for six hours
off		None

4.3.1.2 Changing the desired setting in the Cooling operating mode

Mode	Time periods	Effect
Auto	On	Direct permanent change to the **Day temp. cooling**
	Off	None
Day		Direct permanent change to the **Day temp. cooling**
off		None

4.3.1.3 Changing the desired setting in the Ventilation operating mode

Mode	Time periods	Effect
Auto	On	Direct permanent change to the **Max. vent. stage: Day**
	Off	Direct permanent change to the **Max. vent. stge: Night**
Day		Direct permanent change to the **Max. vent. stage: Day**
Set-back		Direct permanent change to the **Max. vent. stge: Night**

4.3.1.4 Changing the desired setting in the Manual cooling advanced function

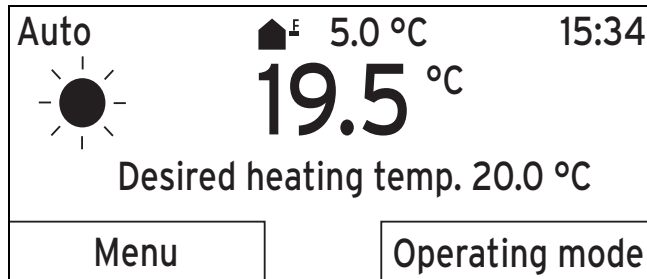| Mode	Time periods	Effect
Activated	On	Direct permanent change to the **Day temp. cooling**
	Off	None

4.3.1.5 Using the rotary knob to make settings with no effect

You cannot influence the following advanced functions by turning the rotary knob:
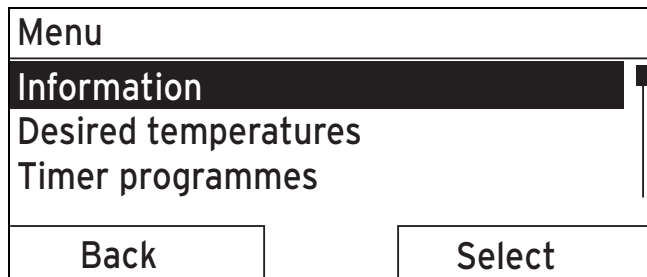
– **System OFF active**
– **Cylinder boost**
– **Party function**
– **1 day at home**
– **Days at home scheduling**
– **1 day away from home**
– **Days away from home scheduling**
– **Ventilation boost**
– **Screed-drying function**

4.3.2 Example, changing the display contrast

```
Auto          🏠ᵉ  5.0 ºC        15:34
    ☀        19.5 °C
    Desired heating temp. 20.0 ºC
     Menu              Operating mode
```

1. If the display does not show the basic display, press the left-hand selection button **Back** until the basic display appears on the display.
2. Press the left-hand selection button **Menu**.

    ◁ The controller switches to selection level 1.

```
Menu
Information
Desired temperatures
Timer programmes
     Back              Select
```

3. Turn the rotary knob until the list entry **Basic settings** is highlighted.
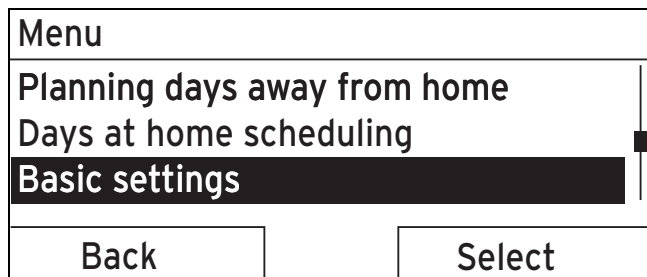
```
Menu
Planning days away from home
Days at home scheduling
Basic settings
     Back              Select
```

4. Press the right-hand selection button **Select**.

    ◁ The controller switches to selection level 2.

```
Basic settings
Language
Date/time
Display
     Back              Select
```
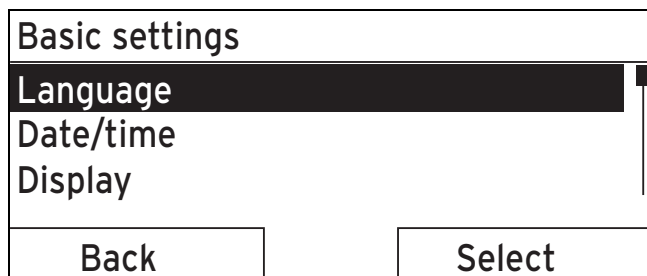
5. Turn the rotary knob until the list entry **Display** is highlighted.

```
Basic settings
Language
Date/time
Display
     Back              Select
```
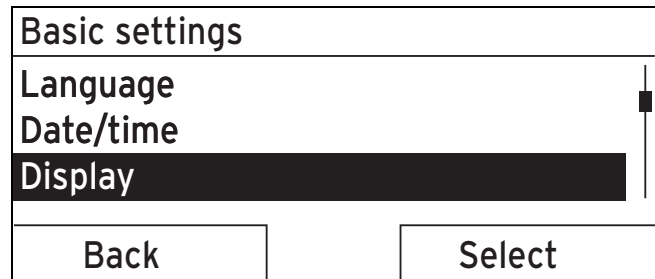
6. Press the right-hand selection button **Select**.

    ◁ The controller will switch to setting level **Display**. The adjustable value for the **Display contrast** will be highlighted.

```
Display
Display contrast              9
Button lock

     Back              Change
```

7. Press the right-hand selection button **Change**.

    ◁ The highlighted value flashes.

```
Display
Display contrast              9
Button lock

     Cancel              OK
```

8. Turn the rotary knob to change the value.

```
Display
Display contrast              12
Button lock

     Cancel              OK
```

9. Press the right-hand selection button **OK** to confirm the change.

    ◁ The controller has saved the changed value.

10. Press the left-hand selection button **Back** repeatedly to go back to the basic display.

5 Operating and display functions

> **Note**
>
> The functions described in this section are not available for all system configurations.

Overview table of the operating modes and operating levels

Operating modes (→ Page 19)

Operating levels (→ Page 19)

The path details given at the start of each function description indicate how you reach this function in the menu structure.

The description of the functions for **ZONE1** also applies for all available zones.

5.1 Information

5.1.1 Reading the system status

Menu → Information → System status

– Under **System status**, there is a list containing information that provides an overview of the current system status, and current settings that you can change there.

5.1.1.1 System

Menu → Information → System status → Fault status

– If no maintenance is required and no faults have occurred, the value **No fault** appears for **Fault status**. If maintenance is required or a fault has occurred, the value **Fault list** is shown for **Fault status**. In this case, the right-hand selection button is for the **Display** function. If you press the right-hand selection button **Display**, the list of fault messages appears on the display.

Menu → Information → System status → Green IQ

– You can use the function if the connected heat generator **Green IQ** is capable of this.

On: The operating mode controls the heat generator in the heating and cylinder charging mode so that a maximum gross calorific value utilisation is achieved.

Off: The operating mode is switched off.

Menu → Information → System status → Water pressure

– You can use this function to read the water pressure of the heating installation.

Menu → Information → System status → System status

– You can use this function to read the heating installation's operating mode.

– **Standby**: The heating installation has no energy requirement and is in standby.
– **Heat. mode**: The heating installation heats the living areas to the **Desired heating temp.**.
– **Cooling**: The heating installation cools the living areas to the **Desired cooling temp.**.
– **DHW**: The heating installation heats the hot water in the cylinder to the desired temperature **Domestic hot water**.

Menu → Information → System status → Collector temp.

– You can use this function to read the current temperature on the collector temperature sensor.

Menu → Information → System status → Solar yield

– You can use this function to read the total solar yield.

Note the contents of the section Display for energy consumption and energy yield (→ Page 10).

Menu → Information → System status → Reset solar yield

– If you select the **Yes** setting in the **Reset solar yield** function and press the right-hand selection button **OK**, you reset the previously totalled solar yield to 0 kWh.

Menu → Information → System status → Environmental yield

– You can use this function to read the total environment yield.

Note the contents of the section Display for energy consumption and energy yield (→ Page 10).

Menu → Information → System status → Reset env.yield

– If you select the **Yes** setting in the **Reset env.yield** function and press the right-hand selection button **OK**, you reset the previously totalled environmental yield to 0 kWh.

Menu → Information → System status → Curr. room air hum.

– You can use this function to read the current room air humidity. The room air humidity sensor is installed in the controller.

Menu → Information → System status → Current dew point

– You can use this function to read the current dew point. The dew point indicates the temperature at which the water vapour in the air condenses and settles on objects.

Menu → Information → System status → triVAI

– You can use this function to read whether the heat pump or the auxiliary heater (gas, oil or electricity) is currently covering the energy requirement. The energy manager uses the **triVAI** and the comfort criteria to decide which heat generator to use.

If the value that is read is greater than 1, the heat pump is better at covering the energy requirement than the auxiliary heater.

5.1.1.2 ZONE1

Menu → Information → System status → Day temp. heating

– You can use this function to set the desired day temperature for the zone.

Day temp. heating is the temperature that you want to have in the rooms during the day or when you are at home.

Menu → Information → System status → Day temp. cooling

– You can use this function to set the desired day temperature for the zone.

Day temp. cooling is the temperature that you want to have in the rooms during the day or when you are at home.

Menu → Information → System status → Set-back temp. heat.

– You can use this function to set the desired set-back temperature for the zone.

Set-back temp. heat. is the temperature that you want to have in the rooms during the night or when you are away from home (night mode).

Menu → Information → System status → Room temperature

5 Operating and display functions

– If the controller is installed outside of the heat generator, you can read the current room temperature.

The controller has an integrated temperature sensor, which determines the room temperature.

5.1.1.3 Ventilation

Menu → Information → System status → Air quality sensor 1/2

– You can use this function to read the measured values from the air quality sensor.

Menu → Information → System status → Exhaust air humidity

– You can use this function to read the exhaust air humidity in the ventilation unit's ventilation shaft.

5.1.2 Display of energy consumption and energy yield

In the display and in the app that can also be used, the control displays values for the energy consumption and/or the energy yield.

The control displays an estimation of the values for the installation. Among other things, the values are influenced by the following:

– The installation/design of the heating installation
– User behaviour
– Seasonal environmental conditions
– Tolerances and components

External components, such as external heating pumps or valves, and other consumers and appliances in the household are still not taken into consideration.

The deviations between the energy consumption or energy yield that is displayed and the actual energy consumption or energy yield may be significant.

The specifications for the energy consumption or energy yield are not suitable to be used to create or compare energy billing.

5.1.2.1 Consumption

Some components do not support the calculation of consumption, the total of which is shown on the display. In the instructions for the components, you can find out if and how the individual components determine the consumption.

Menu → Information → Consumption → Current month → Heating → Electricity

– You can use this function to read the total electrical consumption for heating in the current month.

Menu → Information → Consumption → Current month → Heating → Fuel

– You can use this function to read the total fuel consumption in kWh for heating in the current month.

Menu → Information → Consumption → Current month → Hot water → Electricity

– You can use this function to read the total electrical consumption for hot water in the current month.

Menu → Information → Consumption → Current month → Hot water → Fuel

– You can use this function to read the total fuel consumption in kWh for hot water in the current month.

Menu → Information → Consumption → Last month → Heating → Electricity

– You can use this function to read the total electrical consumption for heating in the last month.

Menu → Information → Consumption → Last month → Heating → Fuel

– You can use this function to read the total fuel consumption in kWh for heating in the last month.

Menu → Information → Consumption → Last month → Hot water → Electricity

– You can use this function to read the total electrical consumption for hot water in the last month.

Menu → Information → Consumption → Last month → Hot water → Fuel

– You can use this function to read the total fuel consumption in kWh for hot water in the last month.

Menu → Information → Consumption → History → Heating → Electricity

– You can use this function to read the total electrical consumption for heating since start-up.

Menu → Information → Consumption → History → Heating → Fuel

– You can use this function to read the total fuel consumption in kWh for heating since start-up.

Menu → Information → Consumption → History → Hot water → Electricity

– You can use this function to read the total electrical consumption for hot water since start-up.

Menu → Information → Consumption → History → Hot water → Fuel

– You can use this function to read the total fuel consumption in kWh for hot water since start-up.

5.1.2.2 Diagram: Reading the solar yield

Menu → Information → Solar yield

– The diagram under **Solar yield** shows a comparison of the monthly solar yields between the previous and the current year.

The total yield is displayed on the bottom right. The highest value achieved in one month for the last two years is displayed in the top right.

5.1.2.3 Diagram: Reading the environmental yield

Menu → Information → Environmental yield

– The diagram under **Environmental yield** shows a comparison between the monthly environmental yields for the previous year and for the current year.

The total yield is displayed on the bottom right. The highest value achieved in one month for the last two years is displayed in the top right.

5.1.2.4 Diagram: Reading the electrical consumption

Menu → Information → Electrical consumption

– The diagram under **Electrical consumption** shows a comparison between the monthly consumption of electricity for the previous year and for the current year.

The total yield is displayed on the bottom right. The highest value achieved in one month for the last two years is displayed in the top right.

5.1.2.5 Diagram: Reading the fuel consumption

Menu → Information → Fuel consumption

– The diagram below **Fuel consumption** shows a comparison between the monthly fuel consumption for the previous year and for the current year.

The total yield is displayed on the bottom right. The highest value achieved in one month for the last two years is displayed in the top right.

5.1.2.6 Diagram: Reading the heat recovery yield

Menu → Information → Heat recovery

– The diagram under **Heat recovery** shows a comparison between the monthly heat recovery yield for the previous year and for the current year.

The total yield is displayed on the bottom right. The highest value achieved in one month for the last two years is displayed in the top right.

5.1.3 Read competent person contact details

Menu → Information → Contact details

– If the competent person entered their company name and telephone number when they installed the product, you can read this data under **Contact details**.

5.1.4 Reading the serial number and article number

Menu → Information → Serial number

– **Serial number** shows the serial number of the controller, which the competent person may require you to tell him. The article number is found in the second line of the serial number.

5.2 Settings

5.2.1 Setting desired temperatures

This function is used to set the desired temperatures for the zone and hot water generation.

5.2.1.1 Zone

Menu → Desired temperatures → ZONE1

– You can set different desired temperatures for the zone:

Heating

– The desired **Day temp. heating** temperature is the temperature that you want to have in the rooms during the day or when you are at home.
– The desired **Set-back temp. heat.** temperature is the temperature that you want to have in the rooms during the night or when you are away from home.

Cooling

– The desired **Day temp. cooling** temperature is the temperature that you want to have in the rooms during the day or when you are at home.

5.2.1.2 Hot water generation

Menu → Desired temperatures → Domestic hot water

– You can set the required **Domestic hot water** temperature for the hot water circuit.

If a heat pump is connected and you have set the desired temperature to above 55 °C, it may be the case that it is the auxiliary heater that predominantly takes on the task of supplying domestic hot water.

5.2.2 Setting the ventilation level

Menu → Ventilation stage

– You can use this function to set how quickly the used room air is replaced with fresh outside air.

The **Max. vent. stage: Day** ventilation level ensures the exchange of air that you want to have in the rooms during the day or when you are at home. The **Max. vent. stge: Night** ventilation level ensures the exchange of air that you want to have in the rooms at night or when you are not at home. The operating instructions for the ventilation unit explain how the ventilation unit works with the ventilation levels.

5.2.3 Setting time programmes
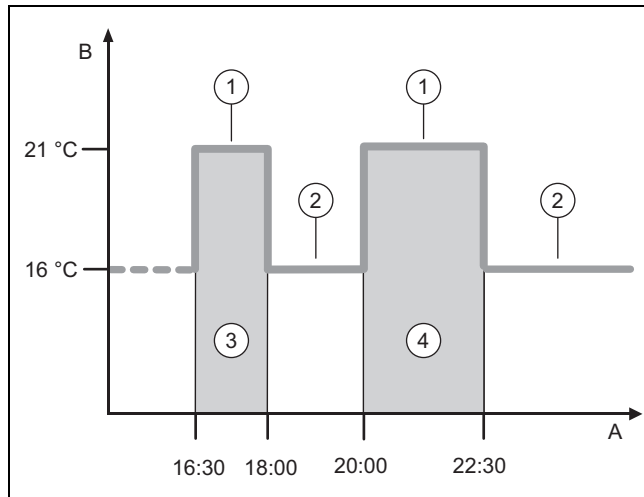
5.2.3.1 Time programme settings after a voltage loss

i	**Note**
	If you de-energise the entire heating installation, all of the values that are set for the time programmes will remain unchanged.

5.2.3.2 Showing time periods for one day

A	Time	2	**Set-back temp. heat.**
B	Temperature	3	Time period 1
1	**Day temp. heating**	4	Time period 2

You can use the **Time programmes** function to set the time period.

If you have not set any time periods, the controller uses the time periods set in the factory settings.

5.2.3.3 Setting time periods for days and blocks

For each day and block, you can set up to three time periods.

The time periods set for a day have priority over the time periods set for a block.

Day temp. heating: 21 °C

Set-back temp. heat.: 16 °C

Period 1: 06:00-08:00

Period 1: 16:30-18:00

Period 1: 20:00-22:30

Within the time periods, the controller brings the room temperature to the set **Day temp. heating**.

Outside the time periods, the controller brings the room temperature to the set **Set-back temp. heat.**.

5.2.3.4 Setting time programmes quickly

If, for example, you require different time periods for just one working day in the week, first set the times for the entire block **Monday - Friday**. Then set the different time period for the working day.

5.2.3.5 Displaying and changing different times in the block

Monday - Sunday	
Period 1:	!! : !! - !! : !!
Period 2:	!! : !! - !! : !!
Period 3:	!! : !! - !! : !!
Back	Select

If you view a block on the display and have defined a different period for a day in this block, the display indicates the different time periods in the block with !!.

Individual dates vary from the selected time programme Mo-Su.
Back / OK

If you press the right-hand selection button **Select**, a message appears on the display which informs you about different time periods. You do not need to adjust the times.

You can use the right-hand selection button **OK** to display and change the set times for the block marked with !!.

5.2.3.6 Setting the Heating time programme

Menu → Time programmes → ZONE1

– The time programmes are only effective in Automatic mode (→ Page 15). Within the time periods, the controller brings the temperature of the connected rooms to the set desired temperature **Day temp. heating**. Outside of these time periods, the control switches to the operating mode that the competent person has set: **Eco** or **Set-back temp. heat.**. If the competent person has left the default setting **Eco**, the control switches off the heating function.

Setting the **Heating** operating mode. (→ Page 15)

5.2.3.7 Setting the Cooling time programme

Menu → Time programmes → ZONE1: **Cooling**

– The time programmes are only effective in the **Cooling** mode and the **Manual cooling** advanced function. In each set time period, the desired temperature that you set in the **Desired temperatures** function applies. Within the time periods, the zone cools the living areas to the desired **Day temp. cooling** temperature. Outside this time period, there is no cooling.

5.2.3.8 Setting the hot water generation time programme

Menu → Time programmes → DHW circuit

– The time programmes are only effective for hot water generation in Automatic mode. In each set time period, the desired **Domestic hot water** temperature applies. At the end of a time period, the controller switches the hot water generation off until the start of the next time period.

5.2.3.9 Circulation time programme

Menu → Time programmes → Circulation

– The time programmes are only effective for circulation in Automatic mode. The set time periods determine the operating times for circulation. Within the time period, the circulation is switched on. Outside the time period, the circulation is switched off.

5.2.3.10 Setting the Ventilation time programme

Menu → Time programmes → Ventilation

– The time programmes are only effective in Automatic mode. In each set time period, the ventilation level that you set in the **Ventilation** function applies. Within the time period, the controller regulates the ventilation unit to **Max. vent. stage: Day** as a maximum. Outside the time period, the controller regulates the ventilation unit to **Max. vent. stge: Night** as a maximum.

5.2.3.11 For the noise reduction periods

Menu → Time programmes → Noise reduction operation

– You can use this function to reduce the fan speed and therefore lower the noise level of the fan. The lower speed reduces the heating output.

The following effects are possible:

– The dwelling no longer heats up.
– The water in the domestic hot water cylinder no longer heats up.
– The auxiliary heater takes on the task of supplying energy to the heating installation.

5.2.3.12 Setting the High tariff time programme

Menu → Time programmes → High tariff

– You can use this function to set when the high tariff or the low tariff should be used to calculate the costs.

Within the time period: For the high tariff

Outside of the time period: For the low tariff

The times of high tariff depend on your energy supply company.

If the energy supply company only offers one tariff, you do not need to set any time periods. The cost for the electricity is calculated using one tariff.

Setting costs (→ Page 14)

5.2.4 Days away from home scheduling

Menu → Days away from home scheduling

– You can use this function to set a period of time and a temperature for the days that you are away from home.

System operation during the set time period

– The hot water is not being heated.
– The previously set temperature applies for all zones.
– The ventilation runs at the lowest ventilation stage.
– The cooling is switched off.

While the **Days away from home scheduling** function is activated, it has priority over the set operating mode. At the end of the specified period, or if you cancel the function, the heating installation returns to the pre-set mode.

i	**Note**
	The **Cooling** function remains switched on if this is required by national law. In this case, the competent person adjusts your heating installation in such a way that the **Cooling** function remains switched on at the desired temperature during your absence.

5.2.5 Day at home scheduling

Menu → Days at home scheduling

– In the specified period, the heating installation works in the **Automatic mode** mode and uses the day settings for **Sunday**, which were set using the **Time programmes** function. At the end of the specified period, or if you cancel the function, the heating installation returns to the pre-set mode.

5.2.6 Select language

Menu → Basic settings → Language

– If the language of e.g. a service technician differs from the set language, you can change the language using this function.

5.2.6.1 Setting your language

1. Press the left-hand selection button repeatedly until the basic display appears.
2. Press the left-hand selection button again.
3. Rotate the rotary knob clockwise until the dotted line appears.
4. Turn the rotary knob anti-clockwise until the second list entry above the dotted line is highlighted.
5. Press the right-hand selection button twice.
6. Turn the rotary knob until you find a language that you understand.
7. Press the right-hand selection button.

5.2.7 Setting the date and time

i	**Note**
	If you disconnect the entire heating installation from the power supply, the time continues to run correctly for 30 minutes. You then have to reset the date and time.

5 Operating and display functions

5.2.7.1 Setting the date

Menu → Basic settings → Date/time → Date

– Select this function to set the current date. All controller functions that contain a date relate to the set date.

5.2.7.2 Setting the time

Menu → Basic settings → Date/time → Time

– Select this function to set the current time. All controller functions that contain a time relate to the set time.

5.2.8 Activating the automatic or manual change-over to daylight saving time

Menu → Basic settings → Date/time → Daylight saving time

– You can use this function to set whether the controller automatically changes over to daylight saving time, or whether you want to do this manually.

– **Auto**: The controller automatically changes over to daylight saving time.

– **Manual**: You have to manually change over to daylight saving time.

> **i** **Note**
> Daylight saving time means Central European summer time: Start = last Sunday in March, End = last Sunday in October.

If the outside temperature sensor is equipped with a DCF77 receiver, the daylight saving time setting is irrelevant.

5.2.9 Set display contrast

Menu → Basic settings → Display → Display contrast

– You can set the display contrast in relation to the brightness of the surroundings, to ensure that the display is clearly legible.

5.2.10 Activating Button lock

Menu → Basic settings → Display → Button lock

– You can use this function to activate the button lock. After one minute of not pressing any button or operating the rotary knob, the button lock is active and you can no longer change any functions unintentionally.

Each time you actuate the controller, the following message appears on the display **Button lock active To unlock, press OK for 3 seconds**. If you press and hold the OK button for 3 seconds, the basic display appears and you can change functions. The button lock becomes active again if you do not press any button or operate the rotary knob for one minute.

To permanently remove the button lock, you must first release the button lock and then select the value **off** in the **Button lock** function.

5.2.11 Setting the preferred display

Menu → Basic settings → Display → Preferred display

– You can use this function to choose whether you see the data for heating, cooling or ventilation in the basic display.

5.2.12 Setting costs

You must specify all tariffs in the unit of currency per kWh for the calculation to be correct.

If your energy supply company specifies the gas and electricity tariff in the unit of currency per m^3, ask for the precise gas and electricity tariff in the unit of currency per kWh.

If your energy supply company only offers one electricity tariff, enter the same value for the **High-tariff elec. rate** (→ Page 14) and **Low-tariff elec. rate** (→ Page 14) functions.

Round the amount up or down to one decimal place.

Example:

	Costs	Setting/factor
Tariff for aux. heater (Gas, oil, electricity)	11.3 currency units/kWh	113
Low-tariff elec. rate (heat pump)	14.5 currency units/kWh	145
High-tariff elec. rate (heat pump)	18.7 currency units/kWh	187

5.2.12.1 Setting the tariff for the auxiliary boiler

Menu → Basic settings → Costs → Tariff for aux. heater

– The factor/value that is set requires the hybrid manager to calculate costs correctly.

To set the correct factor/value, you will need to ask your energy supply company what your gas and electricity tariff is.

5.2.12.2 Setting the low-tariff electricity rate

Menu → Basic settings → Costs → Low-tariff elec. rate

– The factor/value that is set requires the hybrid manager to calculate costs correctly.

To correctly set **Low-tariff elec. rate**, you must ask your energy supply company what your electricity tariff is.

5.2.12.3 Setting the high-tariff electricity rate

Menu → Basic settings → Costs → High-tariff elec. rate

– The factor/value that is set requires the hybrid manager to calculate costs correctly.

To correctly set **High-tariff elec. rate**, you must ask your energy supply company what your electricity tariff is.

5.2.13 Set offset room temperature

Menu → Basic settings → Offset → Room temperature

– The controller can display the current room temperature if it is installed in a living room.

A thermometer is integrated in the controller for measuring the room temperature. You can use the offset to correct the measured temperature value.

5.2.14 Set offset outside temperature

Menu → Basic settings → Offset → Outside temperature

– The thermometer in the controller's outside temperature sensor measures the outside temperature. You can use the offset to correct the measured temperature value.

5.2.15 Changing a zone name

Menu → Basic settings → Enter zone name

– You can now modify the factory-specified zone names as you wish. The name is limited to 10 characters.

5.2.16 Activating Heat recovery

Menu → Basic settings → Ventilation → Heat recovery

– The **Heat recovery** function is set to **Auto**. This means that an internal control system checks whether heat recovery makes sense, or whether the outdoor air can be guided directly into the living room. For more information, see the operating instructions for **recoVAIR.../4** and later models.

If you have selected **Activate**, heat recovery is used constantly.

5.2.17 Setting the room air humidity

Menu → Basic settings → Max. room air humidity

– If the room air humidity exceeds the value set, a connected dehumidifier is activated. As soon as the value drops below the value that is set, the dehumidifier switches off again.

5.2.18 Resetting to default setting

You can reset the settings for the **Time programmes** or for **Everything** to the default setting.

Menu → Basic settings → Default setting → Time programmes

– With **Time programmes**, you reset all the settings you have made in the **Time programmes** function to the default setting. All other settings that include times, such as **Date/time**, are not affected.

While the controller is resetting the time programme settings to the default settings, **In progress** is shown on the display. The basic display is then shown on the display.

> ⚠ **Caution.**
> **Risk of a malfunction.**
>
> The **Default setting Everything** function restores all settings to the default settings, including those set by the competent person. It may be the case that it is no longer possible to operate the heating installation after this.
>
> ▶ Arrange for the competent person to reset all settings to factory settings.

Menu → Basic settings → Default setting → Everything

– While the controller is restoring the default settings, **Reset to default setting In progress** is shown in the display. The installation assistant is then shown in the display; it must only be operated by a competent person.

5.2.19 Installer level

The Installer level is reserved for the competent person and is therefore protected by an access code. At this level, the competent person can implement the required settings.

5.3 Operating modes

The operating modes can be activated directly from any operating mode using the right-hand selection button **Op. mode**. If the heating installation is equipped with more than one zone, the activated operating mode only applies for the zone that was preset by the competent person.

If more than one zone is activated, you can set a separate operating mode for each zone using the left-hand selection button **Menu→ Basic settings**.

The path details given at the start of each operating mode description indicate how you reach this operating mode in the menu structure.

5.3.1 Setting the Heating operating mode

Op. mode → Heating

Menu → Basic settings → Operating mode → ZONE1 → Heating

– You can use this function to specify how the system operates in heating mode.

off: The zone is switched off in this operating mode and the frost protection function is activated.

Auto: The operating mode brings the zone to the desired temperature set for **Day temp. heating** in the time periods that you have set in the time programme.

Outside these time periods, the controller regulates the controller behaviour set by the competent person.

– **Eco**The heating function is switched off and the controller monitors the outside temperature. If the outside temperature falls below 3 °C, the controller switches the heating function on after the end of the frost protection delay time and brings the room temperature to the set desired temperature **Set-back temp. heat.**. Despite the heating function being activated, the burner is only active on demand. If the outside temperature rises above 4 °C, the controller switches the heating function off, but continues to monitor the outside temperature.
– **Set-back**: The heating function is switched on and the controller brings the room temperature to the set desired temperature **Set-back temp. heat.**.

Day: The operating mode brings the zone to the desired temperature **Day temp. heating**, regardless of the time periods that you have set in the time programme.

Set-back: The operating mode brings the zone to the desired temperature **Set-back temp. heat.**, regardless of the time periods that you have set in the time programme.

5.3.2 Setting the Cooling operating mode

Op. mode → Cooling

Menu → Basic settings → Operating mode → ZONE1 → Cooling

– You can use this function to specify how the system operates in cooling mode.

off: The zone is switched off in this operating mode.

5 Operating and display functions

Auto: The operating mode brings the zone to the desired temperature **Day temp. cooling** in the time periods that you have set in the time programme. Outside these time periods, the **Cooling** function is switched off.

Day: The operating mode brings the zone to the desired temperature set for **Day temp. cooling**, regardless of the time periods that you have set in the time programme.

5.3.3 Setting the Ventilation operating mode

The operating instructions for the ventilation unit explain how the ventilation unit works with the ventilation levels.

Op. mode → Ventilation

– You can use this function to define how the ventilation unit operates during ventilation.

Auto: The operating mode controls the air exchange via the set ventilation level **Max. vent. stage: Day** in the set time periods that you have defined in the time programme. The set ventilation level **Max. vent. stge: Night** is effective outside of the time periods.

If air-quality sensors are connected to the ventilation unit, the ventilation unit varies the ventilation levels:

– If the air quality is good, the ventilation unit works at a lower ventilation level than the one that is set.
– If the air quality is poor, the ventilation unit works at a higher ventilation level. However, the ventilation unit cannot exceed the **Max. vent. stage: Day** and **Max. vent. stge: Night** ventilation levels that are set.

Day: The operating mode constantly controls the exchange of air using the value that you set in the **Max. vent. stage: Day** ventilation level.

Set-back: The operating mode constantly controls the exchange of air using the value that you set in the **Max. vent. stge: Night** ventilation level.

5.3.4 Setting the operating mode for hot water generation

Op. mode → Domestic hot water

– You can use this function to specify how the system operates during hot water generation.

off: Hot water generation is switched off and the frost protection function is activated.

Auto: The operating mode brings the hot water generation to the desired temperature set for **Domestic hot water** in the time periods that you have set in the time programme.

Day: The operating mode brings the hot water generation to the desired temperature set for **Domestic hot water**, regardless of the time periods that you have set in the time programme.

5.3.5 Operating mode for circulation

The operating mode for circulation always corresponds to the operating mode for hot water. You cannot set a different operating mode.

5.4 Advanced functions

The advanced functions can be activated directly from any operating mode using the right-hand selection button **Op. mode**. If the heating installation is equipped with more than one zone, the activated advanced function only applies for the zone that was preset by the competent person.

If more than one zone is activated, you can set a separate advanced function for each zone using the left-hand selection button **Menu→ Basic settings**.

The path details given at the start of each advanced function description indicate how you can access this advanced function in the menu structure.

5.4.1 Manual cooling

Op. mode → Manual cooling

– If the outside temperature is high, you can activate the **Manual cooling** advanced function. You define for how many days you want to activate the advanced function. If you activate **Manual cooling**, you cannot use the heating function at the same time. The **Manual cooling** function takes priority over the heating function.

The setting applies for as long as the advanced function is active. The advanced function is deactivated if the days that are set have elapsed or if the outside temperature falls below 4 °C.

If you want to set the temperature separately for more than one zone, you can set these temperatures using the **Desired temperatures** function.

5.4.2 1 day at home

Op. mode → 1 day at home

Menu → Basic settings → Operating mode → ZONE1 → 1 day at home

– If you spend a weekday at home, activate the **1 day at home** advanced function. The advanced function activates the **Automatic mode** mode for one day with the settings for **Sunday**, as set in the **Time programmes** function.

The advanced function is automatically deactivated after 24:00 hours or you can cancel the advanced function first. The heating installation will then return to the pre-set operating mode.

5.4.3 1 day away from home

Op. mode → 1 day away from home

Menu → Basic settings → Operating mode → ZONE1 → 1 day away from home

– If you are only away from home for one day, activate the **1 day away from home** advanced function. The advanced function brings the room temperature to the **Set-back** desired temperature.

Hot water generation and circulation are switched off and the frost protection is activated.

The advanced function is automatically deactivated after 24:00 hours or you can cancel the advanced function first. The heating installation will then return to the pre-set operating mode.

Ventilation is activated and works at the lowest ventilation level.

5.4.4 Ventilation boost

Op. mode → Ventilation boost

**Menu → Basic settings → Operating mode → ZONE1 →
Ventilation boost**

– If you want to switch off the zone while the living areas
are being ventilated, activate the **Ventilation boost** ad-
vanced function.

This advanced function switches the zone off for 30 minutes.
The frost protection function is activated, and hot water gen-
eration and circulation remain active.

Ventilation is activated and works at the highest ventilation
level.

The advanced function is automatically deactivated after 30
minutes or you can cancel the advanced function first. The
heating installation will then return to the pre-set operating
mode.

5.4.5 Party

Op. mode → Party function

**Menu → Basic settings → Operating mode → ZONE1 →
Party function**

– If you want to switch on the zone, hot water generation,
ventilation and circulation temporarily, activate the **Party
function** advanced function.

The advanced function brings the room temperature to the
set desired temperature **Day**, in accordance with the set time
periods.

The advanced function is deactivated after six seconds or
if you cancel it before the six seconds is up. The heating
installation will then return to the pre-set mode.

5.4.6 Cylinder boost

Op. mode → Cylinder boost

– If you have switched off hot water generation or require
hot water outside a time period, activate the **Cylinder
boost** advanced function.

The advanced function heats the water in the domestic hot
water cylinder until it reaches the set desired temperature
Domestic hot water. The advanced function is active for
one hour unless you cancel it sooner. The heating installa-
tion then returns to the preset operating mode.

5.4.7 System OFF (frost protection active)

Op. mode → System OFF active

– The heating function, hot water circuit and cooling are
switched off. The frost protection function is activated.

The circulation is switched off.

Ventilation is activated and works at the lowest ventilation
level.

5.5 Messages

5.5.1 Service message

If a service is required, the controller displays a service mes-
sage in the display.

To prevent the heating installation from breaking down and
to prevent damage, you must pay attention to the service
message:

▶ If the operating instructions for the unit that is displayed
contain maintenance instructions for the service mes-
sage, carry out maintenance work according to the main-
tenance instructions.

▶ If the operating instructions for the unit displayed do not
contain maintenance instructions for the service mes-
sage, or if you do not want to carry out the maintenance
work yourself, inform a competent person.

5.5.2 Fault message

If a fault occurs in the heating installation, the controller dis-
plays a fault message in the display. The competent person
must clear or rectify the fault in the heating installation, oth-
erwise it could cause material damage or make the heating
installation malfunction.

▶ Inform a competent person.

If you would like to see the basic display on the display
again, press the left-hand selection button **Back**.

You can read the current fault messages under **Menu → In-
formation → System status → Fault status**. As soon as a
fault message occurs for the heating installation, the setting
level displays the value **Fault list**. The right-hand selection
button has been assigned the **Display** function.

6 Maintenance

6.1 Caring for the product

> ⚠ **Caution.**
> **Risk of material damage caused by un-
> suitable cleaning agents.**
>
> ▶ Do not use sprays, scouring agents, de-
> tergents, solvents or cleaning agents that
> contain chlorine.

▶ Clean the casing with a damp cloth and a little solvent-
free soap.

7 Troubleshooting

7.1 Overview of the faults

Detecting and rectifying faults (→ Page 23)

If the fault message **Restricted operation/ comfort protection Inactive** appears on the display, the heat pump has failed and the controller enters limp home mode. The auxiliary heater now supplies the heating installation with heating energy. During installation, the competent person has restricted the temperature for limp home mode. You can feel that the hot water and heating are not becoming very hot.

While you wait for the competent person to come, you can use the rotary knob to implement the following settings:

– **Inactive**: The controller works in limp home mode; heating and hot water at a moderately warm temperature
– **Heating**: The auxiliary heater takes over heating mode; hot heating, cold hot water
– **DHW**: The auxiliary heater takes over domestic hot water mode; hot water hot, heating cold
– **DHW+heat.**: The auxiliary heater takes over heating and domestic hot water mode; heating and hot water hot

The auxiliary heater is not as efficient as the heat pump, meaning that using only the auxiliary heater to generate heat is expensive.

If you want to implement settings on the controller, click **Back** and the basic display appears on the display. After five minutes of no operation, the fault message appears again in the display.

8 Decommissioning

8.1 Replacing the controller

If the controller of the heating system needs to be replaced, the heating system must be shut down.

▶ This work should be carried out by a competent person.

8.2 Recycling and disposal

▶ The competent person who installed your product is responsible for the disposal of the packaging.

If the product is identified with this symbol:

▶ In this case, do not dispose of the product with the household waste.
▶ Instead, hand in the product to a collection centre for old electrical or electronic appliances.

If the product contains batteries that are marked with this symbol, these batteries may contain substances that are hazardous to human health and the environment.

▶ In this case, dispose of the batteries at a collection point for batteries.

9 Guarantee and customer service

9.1 Guarantee

We only grant a Vaillant manufacturers warranty if a suitably qualified engineer has installed the system in accordance with Vaillant instructions. The system owner will be granted a warranty in accordance with the Vaillant terms and conditions. All requests for work during the guarantee period must be made to Vaillant Service Solutions.

9.2 Customer service

To ensure regular servicing, it is strongly recommended that arrangements are made for a Maintenance Agreement. Please contact Vaillant Service Solutions for further details:

Telephone: 0330 100 3461

10 Technical data

10.1 Product data in accordance with EU Ordinance no. 811/2013, 812/2013

On units with integrated weather compensators, including a room thermostat function that can be activated, the seasonal room-heating efficiency always includes the correction factor for controller technology class VI. The seasonal room-heating efficiency may deviate if this function is deactivated.

Temperature control class	VI
Contribution to the seasonal room-heating energy efficiency ηs	4.0 %

Appendix

A   Overview of the operating and display functions

	Note
i	The listed functions in the overview of the operating modes and overview of the operating levels are not available for all system configurations.

A.1   Operating modes

Operating mode	Setting	Default setting
Operating mode		
Heating	**off**, **Auto**, **Day**, **Set-back**	**Auto**
Cooling	**off**, **Auto**, **Day**	**Auto**
Ventilation	**Auto**, **Day**, **Set-back**	**Auto**
Domestic hot water	**off**, **Auto**, **Day**	**Auto**
Advanced functions		
Manual cooling	**active**	–
1 day at home	**active**	–
1 day away from home	**active**	–
Ventilation boost	**active**	–
Party function	**active**	–
Cylinder boost	**active**	–
System OFF active	**active**	–

A.2   Operating levels

The description of the functions for **ZONE1** also applies for all available zones.

Setting level	Values		Unit	Increment, select	Default setting
	Min.	Max.			
Information → System status →					
System ----					
Fault status	Current value			**No fault**, **Fault list**	
Green IQ				**Off**, **On**	**On**
Water pressure	Current value		bar		
System status	Current value			**Standby**, **Heat. mode**, **Cooling**, **DHW**	
Burner	Current value			**On**, **off**	
Collector temp.	Current value		℃		
Solar yield	Current value		kWh		
Reset solar yield				**Yes**, **No**	**No**
Environmental yield	Current value		kWh		
Reset env.yield				**Yes**, **No**	**No**
Curr. room air hum.	Current value		%		
Current dew point	Current value		℃		
triVAI	Current value				
ZONE1 ----					
Day temp. heating	5	30	℃	0.5	20
Day temp. cooling	15	30	℃	0.5	24
Set-back temp. heat.	5	30	℃	0.5	15
Room temperature	Current value		℃		
Ventilation ----					
Air quality sensor 1	Current value		ppm		

Appendix

Setting level	Values		Unit	Increment, select	Default setting
	Min.	Max.			
Air quality sensor 2	Current value		ppm		
Exhaust air humidity	Current value		%rel		
Information → Consumption → Current month →					
Heating ----					
Electricity	Total value for the current month		kWh		
Fuel	Total value for the current month		kWh		
Hot water ----					
Electricity	Total value for the current month		kWh		
Fuel	Total value for the current month		kWh		
Information → Consumption → Last month →					
Heating ----					
Electricity	Total value for the last month		kWh		
Fuel	Total value for the last month		kWh		
Hot water ----					
Electricity	Total value since start-up		kWh		
Fuel	Total value since start-up		kWh		
Information → Consumption → History →					
Heating ----					
Electricity	Total value since start-up		kWh		
Fuel	Total value since start-up		kWh		
Hot water ----					
Electricity	Total value since start-up		kWh		
Fuel	Total value since start-up		kWh		
Information → Solar yield →					
Bar chart	Previous year to current year comparison		kWh/month		
Information → Environmental yield →					
Bar chart	Previous year to current year comparison		kWh/month		
Information → Electrical consumption →					
Bar chart	Previous year to current year comparison		kWh/month		
Information → Fuel consumption →					
Bar chart	Previous year to current year comparison		kWh/month		

Setting level	Values		Unit	Increment, select	Default setting
	Min.	**Max.**			
Information → Heat recovery →					
Bar chart	Previous year to current year comparison		kWh/month		
Information → Contact details →					
Installer Phone number	Current values				
Information → Serial number					
Product number	Permanent value				
Desired temperatures → ZONE1 →					
Day temp. heating	5	30	℃	0.5	20
Day temp. cooling	15	30	℃	0.5	24
Set-back temp. heat.	5	30	℃	0.5	15
Desired temperatures → Domestic hot water →					
Domestic hot water	35	70	℃	1	60
Ventilation stage →					
Max. vent. stage: Day	Depending on the ventilation unit			1	Depending on the ventilation unit
Max. vent. stge: Night	Depending on the ventilation unit			1	Depending on the ventilation unit
Time programmes → ZONE1 (Heating) → **Time programmes → ZONE1**: **Cooling** → **Time programmes → Circulation** → **Time programmes → Ventilation** →					
Individual days and blocks				**Monday**, **Tuesday**, **Wednesday**, **Thursday**, **Friday**, **Saturday**, **Sunday** and **Monday - Friday**, **Saturday - Sunday**, **Monday - Sunday**	Mo - Fr: 06:00-22:00 Sa: 07:30-23:30 Su: 07:30-22:00
Period 1: Start – End **Period 2:** Start – End **Period 3:** Start – End	00:00	24:00	h:min	00:10	
Time programmes → Domestic hot water →					
Individual days and blocks				**Monday**, **Tuesday**, **Wednesday**, **Thursday**, **Friday**, **Saturday**, **Sunday** and **Monday - Friday**, **Saturday - Sunday**, **Monday - Sunday**	Mo to Fr: 05:30-22:00 Sa: 07:00-23:30 Su: 07.00-22.00
Period 1: Start – End **Period 2:** Start – End **Period 3:** Start – End	00:00	24:00	h:min	00:10	
Time programmes → Noise reduction operation →					
Individual days and blocks				**Monday**, **Tuesday**, **Wednesday**, **Thursday**, **Friday**, **Saturday**, **Sunday** and **Monday - Friday**, **Saturday - Sunday**, **Monday - Sunday**	Mon – Sun: 00:00-00:00

Appendix

Setting level	Values		Unit	Increment, select	Default setting
	Min.	Max.			
Period 1: Start – End **Period 2:** Start – End **Period 3:** Start – End	00:00	24:00	h:min	00:10	Mon – Sun: 00:00-00:00
Time programmes → High tariff →					
Individual days and blocks				**Monday**, **Tuesday**, **Wednesday**, **Thursday**, **Friday**, **Saturday**, **Sunday** and **Monday - Friday**, **Saturday - Sunday**, **Monday - Sunday**	Mo - Su: 11:00-13:00
Period 1: Start – End **Period 2:** Start – End **Period 3:** Start – End	00:00	24:00	h:min	00:10	
Days away from home scheduling →					
Start	01.01.01	31.12.99	dd.mm.yy	Day.Month.Year	01.01.14
End	01.01.01	31.12.99	dd.mm.yy	Day.Month.Year	01.01.14
Temperature	5	30	℃	1	15
Days at home scheduling →					
Start	01.01.01	31.12.99	dd.mm.yy	Day.Month.Year	01.01.14
End	01.01.01	31.12.99	dd.mm.yy	Day.Month.Year	01.01.14
Basic settings → Language →					
				Selectable language	**English**
Basic settings → Date/time →					
Date	01.01.01	31.12.99	dd.mm.yy	Day.Month.Year	01.01.15
Time	00:00	23:59	h:min	00:10	08:00
Daylight saving time				**Manual**, **Auto**	**Manual**
Basic settings → Display →					
Display contrast	1	15		1	9
Button lock				**off**, **On**	**off**
Preferred display				**Heating**, **Cooling**, **Vent.**	**Heating**
Basic settings → Costs →					
Tariff for aux. heater	1	999		1	12
Low-tariff elec. rate	1	999		1	16
High-tariff elec. rate	1	999		1	20
Basic settings → Offset →					
Room temperature	-3.0	3.0	K	0.5	0.0
Outside temperature	-3.0	3.0	K	0.5	0.0
Basic settings → Operating mode → ZONE1 →					
Heating				**off**, **Auto**, **Day**, **Set-back**	**Auto**
Cooling				**off**, **Auto**, **Day**	**Auto**
1 day at home				Active, Not active	Not active
1 day away from home				Active, Not active	Not active

Setting level	Values		Unit	Increment, select	Default setting
	Min.	Max.			
Ventilation boost				Active, Not active	Not active
Party function				Active, Not active	Not active
Basic settings → Enter zone name →					
ZONE1	1	10	Let-ter/number	A to Z, 0 to 9, space	**ZONE1**
Basic settings → Ventilation →					
Heat recovery				**Auto**, **Activate**, off	**Auto**
Basic settings → Max. room air humidity →					
Max. room air hum.	30	70	%rel	1	40
Basic settings → Default setting →					
Time programmes				**Yes**, **No**	**No**
Everything				**Yes**, **No**	**No**
Installer level →					
Enter code	000	999		1	000

B   Detecting and rectifying faults

Fault	Cause	Remedy
Display is dark No changes in the display when the rotary knob is turned No changes in the display when the selection buttons are pressed	Appliance fault	– Switch off the mains switch on all heat generators for approx. 1 minute and then switch them on again. – If the fault is still present, inform the competent person.
It is not possible to change the settings or values Display view: **Button lock active To unlock, press OK for 3 seconds**	Button lock is active	If you want to change the values without deactivating the button lock: 1. Press the **OK** selection button for 3 seconds. 2. Select the function for which you want to change a value. 3. Change the value. After one minute of not pressing anything, the button lock is reactivated. If you want to deactivate the button lock: 1. Press the **OK** selection button for 3 seconds. 2. Select the **Button lock** function. 3. Change the value to **off**.
Insufficient heating-up of the heating and the hot water Display view: **Restricted operation/ comfort protection**	Heat pump does not work	1. Inform the competent person. Temporary settings until the competent person arrives: 2. Use the rotary knob to select the setting: – **Inactive**: The controller works in limp home mode; heating and hot water at a moderately warm temperature – **Heating***: The auxiliary heater takes over heating mode – **DHW**: The auxiliary heater takes over domestic hot water mode – **DHW+heat.**: The auxiliary heater takes over heating and domestic hot water mode
*The auxiliary heater is not as efficient as the heat pump, meaning that using only the auxiliary heater to generate heat is expensive.		

Appendix

Fault	Cause	Remedy
Display view: **Fault F. Fault: Heat generator 1** (The specific fault code, e.g. F.28, appears behind F. in the display.)	Heat generator faults	1. Press the **Reset** selection button. – **Heat generator fault clearance?** appears in the display. 2. Press the **OK** selection button. – **Faults are cleared for the heat generator** briefly appears in the display. 3. If the fault persists, inform the competent person.
*The auxiliary heater is not as efficient as the heat pump, meaning that using only the auxiliary heater to generate heat is expensive.		

Index

Index

270421 REV3

0020200782_03 ‖ 09.09.2016