

## Operating instructions



atmoTEC exclusive,  
atmoTEC plus

VC, VCC, VCW

DE

**Publisher/manufacturer**

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## 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

There is a risk of injury or death to the user or others, or of damage to the product and other property in the event of improper use or use for which it is not intended.

The product is intended as a heat generator for closed heating installations and for hot water generation.

#### **Applicability:** B1 unit types

Dieser Heizkessel mit Naturzug ist für den Anschluss ausschließlich in bestehenden Gebäuden an eine von mehreren Wohnungen belegte Abgasanlage bestimmt, die die Verbrennungsrückstände aus dem Aufstellraum ins Freie ableitet. Er bezieht die Verbrennungsluft unmittelbar aus dem Aufstellraum und ist mit einer Strömungssicherung ausgestattet. Wegen geringerer Effizienz ist jeder andere Einsatz dieses Heizkessel zu vermeiden — er würde zu einem höheren Energieverbrauch und höheren Betriebskosten führen.

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.

This product can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the product in a safe way and understand the hazards involved. Children must not play with the product. Cleaning and user maintenance work must not be carried out by children unless they are supervised.

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 use in industrial or commercial processes is also deemed to be improper.

#### **Caution.**

Improper use of any kind is prohibited.

### 1.3 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.

### 1.4 Risk of death from escaping gas

What to do if you smell gas in the building:

- ▶ Avoid rooms that smell of gas.
- ▶ If possible, open doors and windows fully and ensure adequate ventilation.
- ▶ Do not use naked flames (e.g. lighters, matches).
- ▶ Do not smoke.
- ▶ Do not use any electrical switches, mains plugs, doorbells, telephones or other communication systems in the building.
- ▶ Close the emergency control valve or the main isolator.
- ▶ If possible, close the gas isolator cock on the product.

## 1 Safety



- ▶ Warn other occupants in the building by yelling or banging on doors or walls.
- ▶ Leave the building immediately and ensure that others do not enter the building.
- ▶ Alert the police and fire brigade as soon as you are outside the building.
- ▶ Use a telephone outside the building to inform the emergency service department of the gas supply company.

### 1.5 Risk of death due to blocked or leaking flue pipework

What to do if you smell flue gas in the property:

- ▶ Open all accessible doors and windows fully to provide ventilation.
- ▶ Switch off the product.
- ▶ Inform a competent person.

### 1.6 Risk of death due to explosive and flammable materials

- ▶ Do not use the product in storage rooms that contain explosive or flammable substances (such as petrol, paper or paint).

### 1.7 Risk of death due to changes to the product or the product environment

- ▶ Never remove, bridge or block the safety devices.
- ▶ Do not tamper with any of the safety devices.
- ▶ Do not damage or remove any tamper-proof seals on components.
- ▶ Do not make any changes:
  - The product itself
  - to the gas, supply air, water and electricity supply lines
  - to the entire flue system
  - to the expansion relief valve
  - to the drain pipework
  - to constructional conditions that may affect the operational reliability of the product

### 1.8 Risk of poisoning caused by insufficient combustion air supply

**Conditions:** Open-flued operation

- ▶ Ensure that there is a sufficient combustion air supply.

### 1.9 Risk of being scalded by hot drinking water

There is a risk of scalding at the hot water draw-off points if the hot water temperatures are greater than 60 °C. Young children and elderly persons are particularly at risk, even at lower temperatures.

- ▶ Select the temperature so that nobody is at risk.

### 1.10 Risk of injury and material damage due to maintenance and repairs carried out incorrectly or not carried out at all

- ▶ Never attempt to carry out maintenance work or repairs on your product yourself.
- ▶ Faults and damage should be immediately rectified by a competent person.
- ▶ Adhere to the maintenance intervals specified.

### 1.11 Risk of corrosion damage due to unsuitable combustion and room air

Sprays, solvents, chlorinated cleaning agents, paint, adhesives, ammonia compounds, dust or similar substances may lead to corrosion on the product and in the air/flue pipe.

- ▶ Ensure that the combustion air supply is always free of fluorine, chlorine, sulphur, dust, etc.
- ▶ Ensure that no chemical substances are stored at the installation site.





### **1.12 Risk of material damage caused by calcification**

If the water hardness is greater than 3.57 mol/m<sup>3</sup>, there is a risk of calcification in products which generate hot water.

- ▶ Set the hot water temperature to a maximum of 50 °C.

### **1.13 Risk of material damage caused by frost**

- ▶ Ensure that the heating installation always remains in operation during freezing conditions and that all rooms are sufficiently heated.
- ▶ If you cannot ensure the operation, have a competent person drain the heating installation.



## 2 Notes on the documentation

### 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 Validity of the instructions

These instructions apply only to:

##### Product article number

VC DE 104/4-7 A-P	0010018739
VC DE 104/4-7 A-L	0010018740
VC DE 104/4-7 A-H	0010018741
VCC 194/4-5 120 (E-DE), surface-mounted	0010024478
VCC 194/4-5 120 (E-DE), concealed	0010024480
VCC 194/4-5 120 (LL-DE), surface-mounted	0010024479
VCC 194/4-5 120 (LL-DE), concealed	0010024481
VCW DE 194/4-5 A-L	0010017844
VCW DE 194/4-5 A-H	0010017845
VCW DE 204/4-7 A-P	0010018745
VCW DE 204/4-7 A-L	0010018746
VCW DE 204/4-7 A-H	0010018747
VCW DE 244/4-5 A-L	0010017846
VCW DE 244/4-5 A-H	0010017847
VCW DE 254/4-7 A-P	0010018742
VCW DE 254/4-7 A-L	0010018743
VCW DE 254/4-7 A-H	0010018744

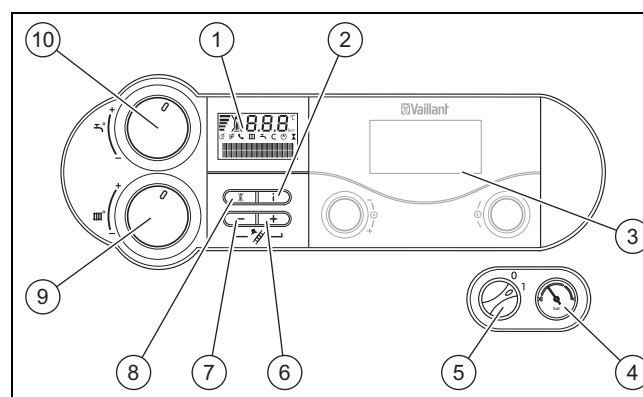
**Applicability:** VCC 194/4-5 120 (E-DE), surface-mounted, VCC 194/4-5 120 (E-DE), concealed, VCC 194/4-5 120 (LL-DE), surface-mounted, VCC 194/4-5 120 (LL-DE), concealed

These instructions are only valid in conjunction with the instructions for:

- **VIH R 120/6 B**
- Cylinder retrofitting set
- **VRT 350**
- Piping set
  - Surface-mounted piping set for 120 l
  - Concealed piping set for 120 l

### 3 Product description

#### 3.1 Overview of the control elements



- |   |                     |    |                                      |
|---|---------------------|----|--------------------------------------|
| 1 | Display             | 6  | + button                             |
| 2 | i button            | 7  | - button                             |
| 3 | Control (accessory) | 8  | Reset button                         |
| 4 | Manometer           | 9  | Heating flow temperature rotary knob |
| 5 | Main switch         | 10 | Domestic hot water rotary knob       |

The display shows the current heating flow temperature, the system pressure of the heating installation, the operating mode or certain additional information.

The **i** button is used to call up status information.

The control, which is available as an accessory, automatically controls the flow temperature depending on the outdoor temperature.

The manometer is used to mechanically display the current filling pressure of the heating installation.

The main switch is used to switch the product on and off.

The **+** button is used to switch on the chimney sweep function.

The **-** button is used to switch on the chimney sweep function and to display the filling pressure of the heating installation.

The **Reset** button is used to reset the product in the case of certain faults.

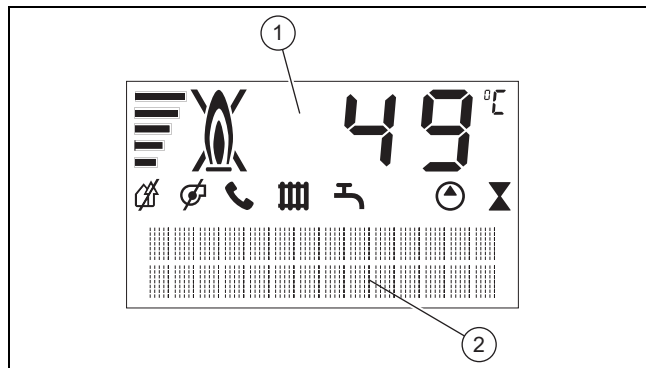
The heating flow temperature rotary knob is used to set the heating flow temperature if no control is connected. If a control is connected, the heating flow temperature rotary knob should be turned clockwise as far as it will go.

**VC/VCC:** The domestic hot water rotary knob is used to set the cylinder temperature if a domestic hot water cylinder is connected.

**VCW:** The domestic hot water rotary knob is used to set the domestic hot water outlet temperature.

If a control is connected, the domestic hot water rotary knob should be turned clockwise as far as it will go. The control then determines the cylinder temperature.

### 3.1.1 Digital Information and Analysis System (DIA)



1 Display showing the current heating flow temperature, the filling pressure in the heating installation, or a status or fault code

2 Plain text display (for atmoTEC exclusive only)

Symbol	Meaning	Explanation
	Flue gas route	Symbol permanently visible: Fault in the flue gas route
	<b>VR 920</b>	<p>The heating flow and domestic hot water temperature are specified via the <b>VR 920</b> communications system. The product works at temperatures other than those set at the rotary knob. This operating mode can only be terminated by:</p> <ul style="list-style-type: none"> <li><b>VR 920</b></li> <li>Changing the temperature at the rotary knobs by more than <math>\pm 5 \text{ K}</math></li> </ul> <p>This operating mode cannot be terminated by:</p> <ul style="list-style-type: none"> <li>Pressing the <b>Reset</b> button.</li> <li>Switching the product off and on again</li> </ul>
	Heating mode	<ul style="list-style-type: none"> <li>Symbol permanently on: Product is in heating mode operating mode</li> <li>Symbol flashing: Burner anti-cycling time is active</li> </ul>




Symbol	Meaning	Explanation
	Domestic hot water generation	<p><b>VC/VCC*:</b></p> <ul style="list-style-type: none"> <li>Symbol permanently visible: Charging mode for the domestic hot water cylinder is enabled by the control and floor-standing boiler control system</li> <li>Symbol flashes: Domestic hot water cylinder is being heated</li> </ul> <p><b>VCW:</b></p> <ul style="list-style-type: none"> <li>Symbol permanently visible: Domestic hot water is being drawn off</li> <li>Symbol off: No domestic hot water is being drawn off</li> </ul>
	Warm start	<p><b>VCW:</b></p> <ul style="list-style-type: none"> <li>Symbol permanently visible: Warm start function is in standby</li> <li>Symbol flashes: Warm start function is in standby, burner is switched on</li> </ul>
	Heating pump operating	
	Solenoid valve is actuated	Gas supply to the burner is open
	Current energy demand	Display of the current burner modulation rate (only bar graph display for atmoTEC exclusive)
	Fault during burner operation	Burner is switched off
	Burner operating correctly	Burner is switched on
* Only when a domestic hot water cylinder is connected		
Press the "-" button for approx. five seconds to switch from the flow temperature display to the system pressure display or vice-versa.		

### 3.2 Information on the data plate

The data plate is mounted on the underside of the product at the factory.

Information on the data plate	Meaning
VC, VCC, VCW	Type designation
10, 19, 20, 24, 25	Unit output
/4	Unit generation
-5 = plus, -7 = exclusive	Unit type
V	Mains voltage
W	Power consumption
Hz	Mains frequency
MPa	Max. line pressure
IP	IP rating/protection class
Cat. (e.g. II <sub>2H3P</sub> )	Unit category

## 4 Operation

Information on the data plate	Meaning
Type (e.g. B <sub>11</sub> )	Gas-fired boiler types
2E, G20 – 20 mbar (2.0 kPa)	Gas group and gas connection pressure as set at the factory
ww/yyyy (e.g. 11/2014)	Date of manufacture: Week/year
PMW (e.g. 10 bar (1 MPa))	Permissible total excess pressure during domestic hot water generation
PMS (e.g. 3 bar (0.3 MPa))	Permissible total excess pressure in heating mode
P	Nominal heat output range
T <sub>max.</sub> (e.g. 85 °C)	Max. flow temperature
Q	Heat input range
D	Nominal domestic hot water draw-off rate
	Heating mode
	Domestic hot water generation
	Barcode with serial number, The 7th to 16th digits of the serial number form the article number

### 3.3 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

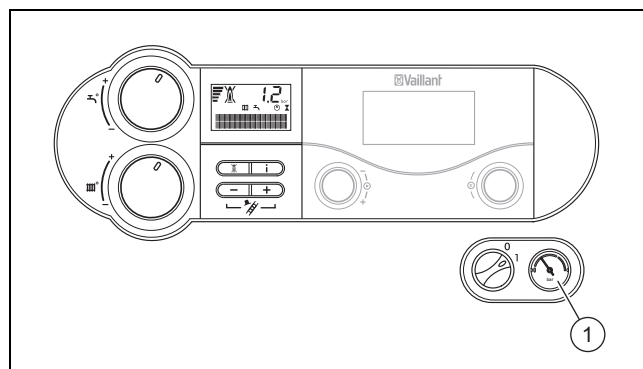
### 4.1 Opening the isolators

1. Ask the competent person who installed the product to explain to you where these isolators are located and how to handle them.
2. Open the gas stopcock installed on-site.
3. Open the gas stopcock on the product.
4. Open the service valves in the heating installation's flow and return.

**Applicability:** Product with integrated domestic hot water generation  
OR Product with connected domestic hot water cylinder

- Open the cold-water isolation valve.

### 4.2 Checking the system pressure on the manometer



- Before starting up the unit, check the installation's filling pressure on the manometer (1). To ensure that the heating installation works correctly, a filling pressure between 1.0 and 2.0 bar should be displayed when the installation is cold (the indicator on the manometer is then located in the light-grey area). If the filling pressure is lower than 0.8 bar (the indicator on the manometer is then in the dark-grey area), it must be filled with water before start-up (→ section "Filling the heating installation").



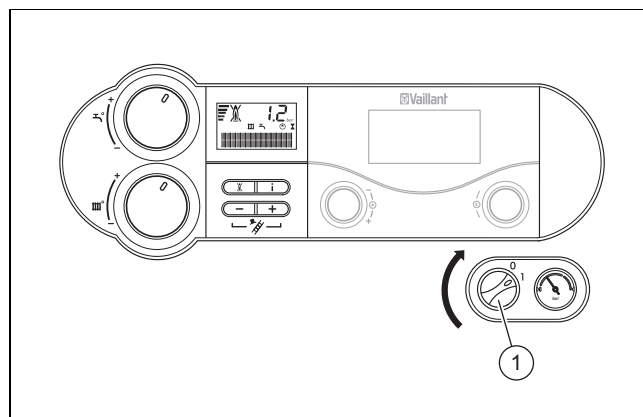
#### Note

If the heating installation extends over several storeys, a higher filling pressure may be required. Ask your competent person for details.

### 4.3 Starting up the product

- Only start up the product once the casing has been completely closed.

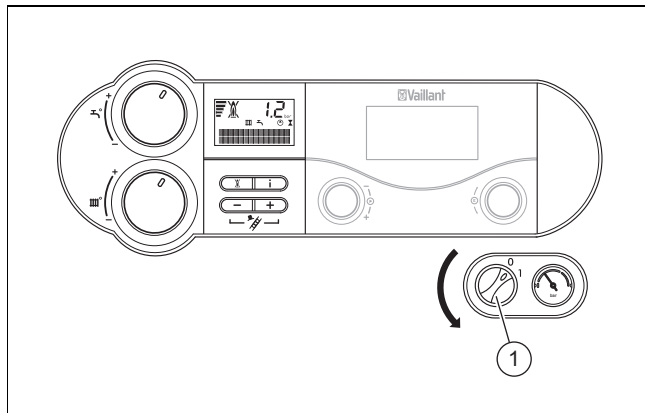
### 4.4 Switching on the product



1. Use the main switch (1) to switch on the product.
  - ◁ 1: "ON"
  - ◁ When the main switch is in position 1, the product is switched on and the standard display for the Digital Information and Analysis System is shown in the display.
2. Set up your product according to your needs.

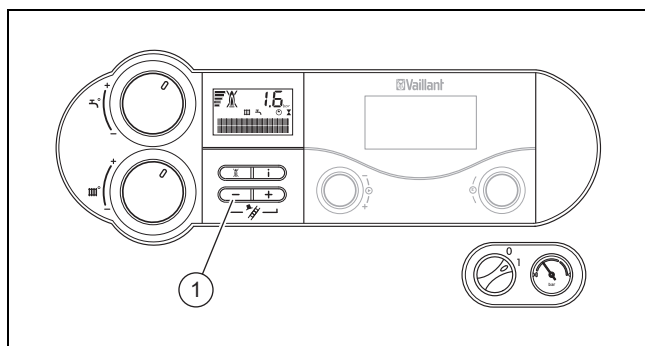


## 4.5 Switching off the product



1. Use the main switch (1) to switch off the product.
  - In order for the protection modes, such as frost protection, to remain activated, only activate and deactivate the product using the control (you can find information about this in the relevant operating instructions).
  - ◁ 0: "OFF"
2. If no control is present, turn the adjuster anti-clockwise as far as it will go to switch off the heating and domestic hot water mode.

## 4.6 Checking the system pressure



1 – button

- ▶ Check the heating installation's filling pressure at regular intervals. Briefly press the – (1) button.
  - ◁ The display will show the filling pressure for approximately 5 seconds.
  - ◁ The filling pressure must lie between 1.0 and 2.0 bar when the heating installation is cold in order for the heating installation to operate properly. If the pressure is lower, you must add heating water before starting up.



### Note

You can permanently switch between the temperature or pressure display in the display by pressing and holding the – button for approximately five seconds.



### Note

To avoid operating the heating installation with an insufficient water volume and to prevent potential subsequent damage, the product is fitted with a pressure sensor. The pressure sensor signals the low pressure level if the level falls below 0.6 bar. This is signalled by the system pressure value in the display flashing. If the level falls below 0.03 MPa (0.3 bar), the system displays the fault message and **F.22** alternately, and the burner is blocked. If the system pressure is lower than 0.06 MPa (0.6 bar), fill the heating installation up again as quickly as possible. As soon as the system pressure rises above 0.6 bar, the product starts up again without any further measures being required.



### Note

If the heating installation extends over several floors, a higher system pressure for the heating installation may be necessary. Ask your competent person for details.

## 4.7 Filling the heating installation



### Caution.

**Risk of material damage due to heating water that is extremely calciferous or corrosive or contaminated by chemicals.**

Unsuitable tap water damages the seals and diaphragms, blocks components in the product and heating installation through which the water flows and causes noise.

- ▶ Only fill the heating installation with suitable heating water.
- ▶ In case of doubt, ask a competent person for details.



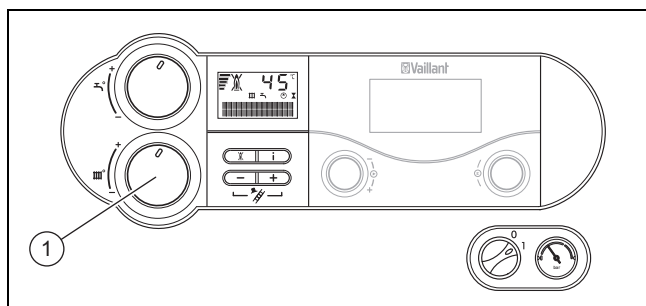
### Note

The competent person is responsible for filling the heating installation the first time.

1. Connect the filling tap to a cold water pipe, as explained by the competent person.
2. Open all radiator valves (thermostatic valves) of the heating installation.
3. Open the cold water pipe.
4. Turn the filling tap on slowly and allow water to flow in until the required system pressure has been reached.
5. Close the cold water pipe.
6. Purge all radiators.
7. Check the filling pressure of the heating installation. (→ Page 9)
8. Top up with more water if required.
9. Close the filling tap.
10. Disconnect the filling tap from the cold water pipe.

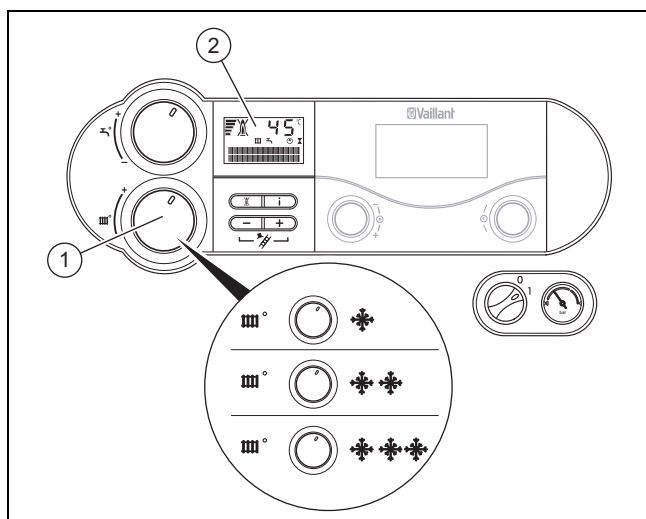
## 4 Operation

### 4.8 Setting the heating flow temperature (with control)



1. Set the rotary knob for the heating flow temperature (1) to the clockwise end stop.
2. Set the required heating flow temperature on the control (→ Control operating instructions).

### 4.9 Setting the heating flow temperature (without control)



- Set the target flow temperature on the rotary knob for the heating flow temperature (1) in accordance with the outdoor temperature.

Position	Meaning	Outdoor temperature
Fully left	Frost protection	
Anti-clockwise (but not at the end stop)	Transition Time	Approx. 10 ... 20 °C (50.0 ... 68.0 °F)
Centre	Moderate cold	Approx. 0 ... 10 °C (32.0 ... 50.0 °F)
Clockwise	Extreme cold	Below 0 °C (32.0 °F)

- ◁ After turning the rotary knob for the heating flow temperature, the display shows the set target flow temperature (2). After three seconds, this display goes out and the default display reappears (current heating flow temperature).



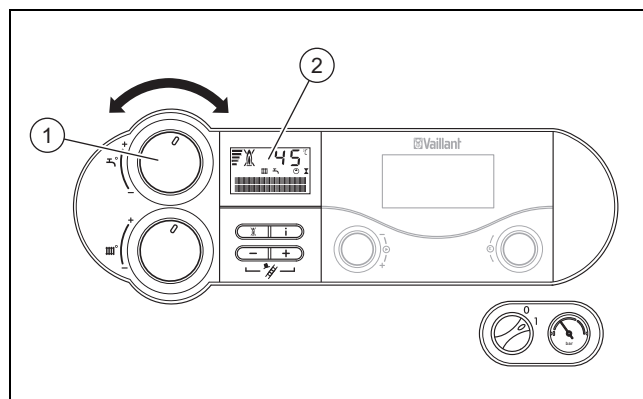
#### Note

The maximum heating flow temperature is set in the factory at 75 °C. This can be defined by the competent person to be between 40 °C and 85 °C.

### 4.10 Setting the domestic hot water generation

#### 4.10.1 Setting the domestic hot water temperature

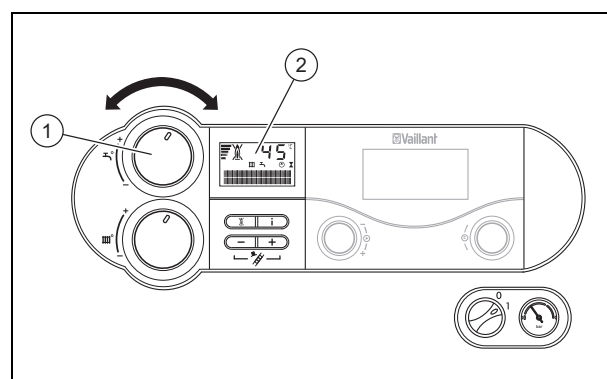
**Applicability:** Product with integrated domestic hot water generation



1. Switch on the product (→ "Switching on the product" section).
2. Set the rotary knob (1) for setting the domestic hot water temperature to the required temperature.
  - Domestic hot water temperature: Left-hand stop approx. 35 °C, right-hand stop max. 65 °C.
  - When setting the required temperature, the associated target value is shown in the display (2). After approx. five seconds, this display goes out and the normal default display reappears (current flow temperature of the heating installation).

**Applicability:** Product with connected domestic hot water cylinder

**Conditions:** Control connected



- Switch on the product (→ "Switching on the product" section).
- Set the domestic hot water rotary knob (1) as far as it will go clockwise so that the control can work without any faults occurring.



#### Danger!

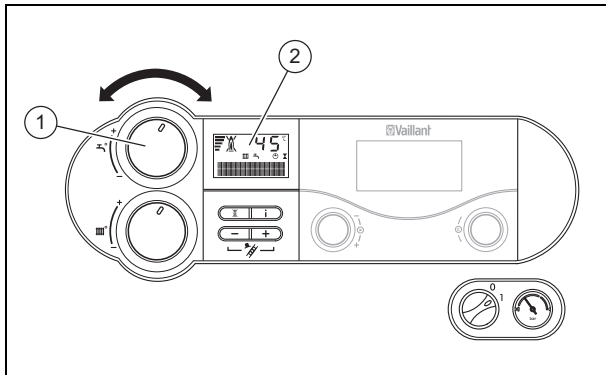
#### Risk of death from legionella.

Legionella multiply at temperatures below 60 °C.

- ▶ Have a competent person inform you about the measures that should be taken to protect against Legionella in your installation.
- ▶ Do not set any water temperatures below 60 °C without consulting the competent person first.

- ▶ Set the required cylinder temperature on the control.

**Conditions:** No control connected



## Danger!

### Risk of death from legionella.

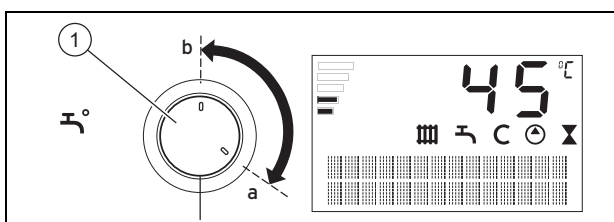
Legionella multiply at temperatures below 60 °C.

- ▶ Have a competent person inform you about the measures that should be taken to protect against Legionella in your installation.
- ▶ Do not set any water temperatures below 60 °C without consulting the competent person first.


- ▶ Set the domestic hot water rotary knob (1) to the required cylinder temperature.
  - The required temperature is shown in the display (2). After three seconds, this display goes out and the default display reappears (current heating flow temperature)

### 4.10.2 Switching on the warm start function

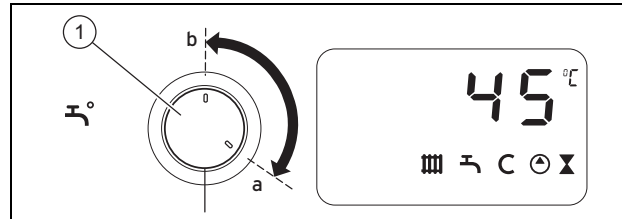
**Applicability:** atmoTEC exclusive, Product with integrated domestic hot water generation




- ▶ To switch on the warm start function, turn the domestic hot water rotary knob (1) clockwise as far as it will go (setting (a)).
- ▶ Set the rotary knob to the required domestic hot water temperature (e.g. setting (b)).

- The keep-warm temperature is automatically adjusted to the set domestic hot water temperature. The heated water is then immediately available when you draw it off. The  symbol flashes in the display.

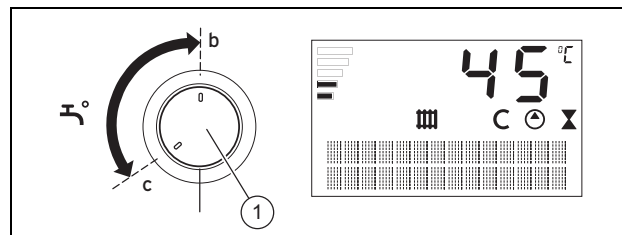
**Applicability:** atmoTEC plus, Product with integrated domestic hot water generation



- ▶ To switch on the warm start function, turn the domestic hot water rotary knob (1) clockwise as far as it will go (setting (a)).
  - The keep-warm temperature is automatically adjusted to the set domestic hot water temperature. The heated water is then immediately available when you draw it off. The  symbol flashes in the display.

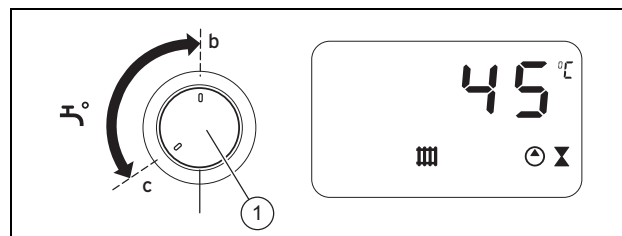
### 4.10.3 Switching off the warm start function

**Applicability:** atmoTEC exclusive, Product with integrated domestic hot water generation



- ▶ To switch off the warm start function, turn the domestic hot water rotary knob (1) anti-clockwise as far as it will go (setting (c)).
  - The symbol goes out.
- ▶ Set the rotary knob to the required domestic hot water outlet temperature (e.g. setting (b)).

**Applicability:** atmoTEC plus, Product with integrated domestic hot water generation



- ▶ To switch off the warm start function, turn the domestic hot water rotary knob (1) anti-clockwise as far as it will go (setting (c)).

## 5 Calling up status codes

- The symbol goes out.
- ▶ Set the rotary knob to the required domestic hot water outlet temperature (e.g. 45 °C).

### 4.11 Switching off the functions of the product

#### 4.11.1 Switching off domestic hot water generation

**Applicability:** Product with connected domestic hot water cylinder

**Conditions:** Control connected

- ▶ Use the control to switch off domestic hot water generation.

**Conditions:** No control connected

- ▶ Turn the domestic hot water rotary knob anti-clockwise as far as it will go.
  - ◁ Cylinder charging mode is switched off.
  - ◁ The frost protection function is activated for the domestic hot water cylinder.
  - ◁ The display shows the target cylinder temperature of 15 °C for three seconds.
    - 15 °C (59.0 °F)



#### Note

The effect of the frost protection function is that, at cylinder temperatures below 10 °C, the domestic hot water generation is switched on until the water in the cylinder has reached 15 °C again.

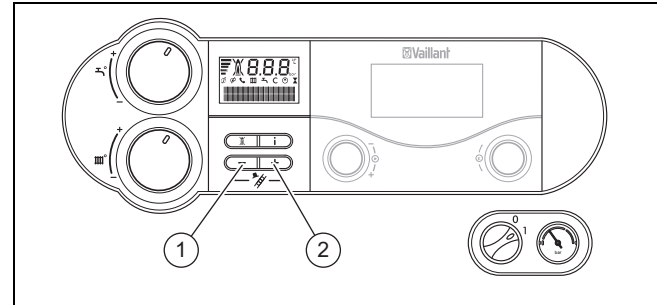
- The product's internal frost protection is therefore guaranteed whether there is a control or not.

### 4.12 Carrying out the flue gas analysis



#### Note

Measurement and inspection work must only be carried out by the chimney sweep or competent person.



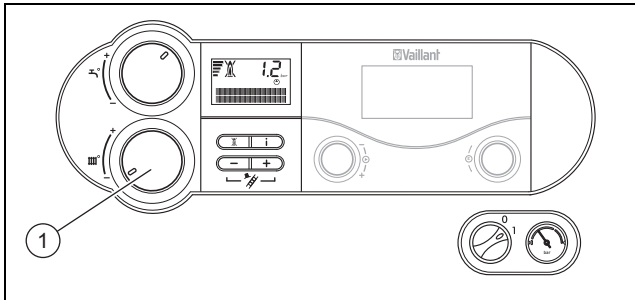
1 – button

2 + button

- Switch on the chimney sweep function by pressing the – and + buttons for the DIA system at the same time.
  - ◁ Shown in the display (only for atmoTEC exclusive): **S.Fh** = heating chimney sweep mode; **S.Fb** = domestic hot water chimney sweep mode
  - ◁ The product now works at maximum load for 15 minutes. If you do not press any buttons for 15 minutes or if a flow temperature of 85 °C is reached, the chimney sweep function is automatically switched off.
- Take the measurements at the earliest after three minutes of the product operating.
- Carry out the measurement in accordance with the core current method.

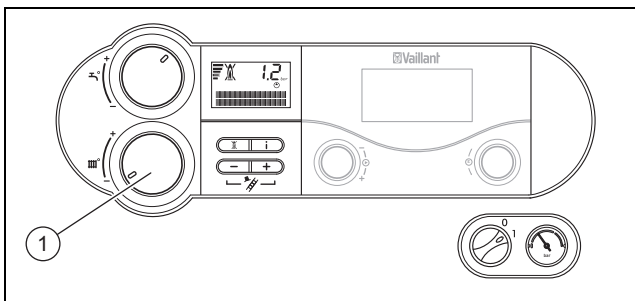
#### 4.11.2 Switching off heating mode (Summer mode)

**Conditions:** Control connected



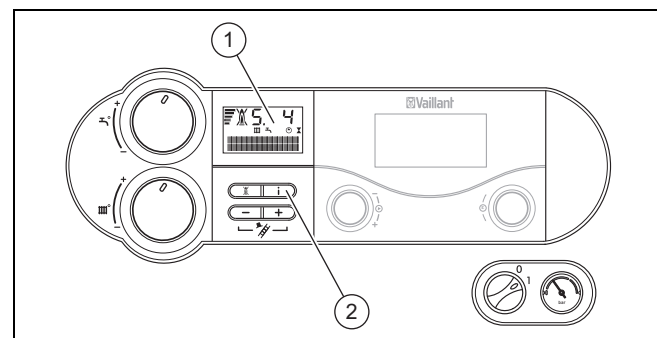
- ▶ To switch off heating mode, use the control to switch off heating mode and leave the heating flow temperature rotary knob (1) at the clockwise end stop.

**Conditions:** No control connected



- ▶ To switch off heating mode, turn the heating flow temperature rotary knob (1) anti-clockwise as far as it will go.

## 5 Calling up status codes



1 Display

2 i button

- Call up the product status by pressing the i button.
  - Switch the display back to normal operating mode by pressing the i button.
- Status codes – Overview (→ Page 15)

## 6 Detecting and eliminating faults

- ▶ If faults or fault messages (F.XX) occur, proceed in accordance with the table in the appendix.
- ▶ If the product is not functioning correctly, contact a competent person.

## 7 Care and maintenance

### 7.1 Maintenance

Annual inspection and maintenance of the product by a competent person is required to ensure that the product is permanently ready and safe for operation, reliable, and has a long service life.

### 7.2 Caring for the product

- ▶ Clean the casing with a damp cloth and a little solvent-free soap.
- ▶ Do not use sprays, scouring agents, detergents, solvents or cleaning agents that contain chlorine.

## 8 Decommissioning

### 8.1 Temporarily decommissioning the product

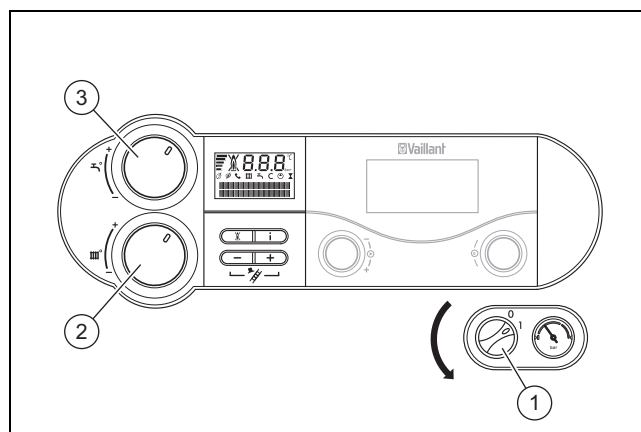


#### Caution.

#### Risk of material damage due to frost

The frost protection and monitoring devices are only active while the unit is connected to the power grid, the product is switched on via the main switch and the gas stopcock is open.

- ▶ You must use the control if you want to activate and deactivate the product in normal mode.
- ▶ If no control is present when a main switch has been switched on, set the rotary knobs for the target heating flow and cylinder values to the anti-clockwise end stop.
- ▶ Do not disconnect the product from the power grid when it is in normal mode.
- ▶ Leave the main switch in position 1 in normal mode.



- |  |                                  |
|--|----------------------------------|
| 1 Main switch                          | 3 Domestic hot water rotary knob |
| 2 Heating flow temperature rotary knob |                                  |

1. Turn the domestic hot water rotary knob (3) anti-clockwise as far as it will go.
2. Turn the rotary knob for the heating flow temperature (2) anti-clockwise as far as it will go.
3. Turn the main switch (1) to position 0.
4. Close the gas stopcock and the cold-water isolation valve.
  - The isolators are not included in the scope of delivery for your product. They are installed on-site by the competent person. Ask the competent person to explain where the isolators are located and how they are operated.

#### 8.1.1 Preventing frost damage

The product is equipped with a frost protection function.

If the heating flow temperature falls below 8 °C when the main switch is switched on, the product's pump starts up.

If the heating flow temperature falls below 5 °C when the main switch is switched on, the product starts up and heats the circulating water on both the heating side and the hot-water side (if available) to approx. 30 °C.



#### Caution.

#### Risk of material damage due to frost.

The frost protection function cannot guarantee flow through the entire heating installation, which means that parts of the heating installation may freeze and therefore become damaged.

- ▶ During a period of frost, ensure that the heating installation remains in operation and that all rooms are sufficiently heated, even when you are away.

- ▶ Consult a competent person about this.

#### 8.1.2 Draining the heating installation

Another way to protect the heating installation and the product from frost for very long switch-off periods is to drain them completely.

- ▶ Consult a competent person about this.

## 9 Recycling and disposal

### 8.2 Permanently decommissioning the product

- Have a competent person permanently decommission the product.

## 9 Recycling and disposal

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



■ If the product is labelled with this mark:

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



■ If the product contains batteries that are labelled with this mark, 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.

## 10 Guarantee and customer service

### 10.1 Guarantee

Herstellergarantie gewähren wir nur bei Installation durch einen anerkannten Fachhandwerksbetrieb.

Dem Eigentümer des Geräts räumen wir diese Herstellergarantie entsprechend den Vaillant Garantiebedingungen ein. Garantiearbeiten werden grundsätzlich nur von unserem Kundendienst ausgeführt. Wir können Ihnen daher etwaige Kosten, die Ihnen bei der Durchführung von Arbeiten an dem Gerät während der Garantiezeit entstehen, nur dann erstatten, falls wir Ihnen einen entsprechenden Auftrag erteilt haben und es sich um einen Garantiefall handelt.

### 10.2 Customer service

Auftragsannahme Vaillant Kundendienst: 021 91 5767901



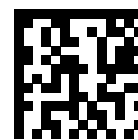
## Appendix

## A Status codes – Overview

Status code	Meaning
<b>Displays in heating mode</b>	
<b>S.0</b>	Heating: No heat demand
<b>S.2</b>	Heating mode: Pump prerun
<b>S.3</b>	Heating mode: Ignition
<b>S.4</b>	Heating mode: Burner on
<b>S.7</b>	Heating mode: Pump overrun
<b>S.8</b>	Heating, remaining anti-cycling time xx mins
<b>Displays in domestic hot water mode</b>	
<b>S.10</b>	Domestic hot water requirement
<b>S.14</b>	DHW mode: Burner on
<b>Displays in Comfort mode with warm start or domestic hot water mode with cylinder</b>	
<b>S.20</b>	Domestic hot water requirement
<b>S.24</b>	DHW mode: Burner on
<b>Other displays</b>	
<b>S.31</b>	Summer mode active or eBUS control is blocking heating mode
<b>S.34</b>	Boiler frost protection mode is active
<b>S.39</b>	The external safety switch is off

## B Troubleshooting

Fault	Cause	Measure
Product does not start up: – No hot water – Heating remains cold	The gas stopcock installed on-site and/or the gas stopcock on the product is closed.	Open both gas stopcocks.
	The cold-water isolation valve is closed.	Open the cold-water isolation valve.
	The power supply in the building is disconnected.	Check the fuse in the building. The product switches on automatically when the power is restored.
	The product is switched off.	Switch on the product (→ "Switching on the product" section).
	The heating flow temperature is set too low or to the <b>Heating off</b> position, and/or the domestic hot water temperature is set too low.	Set the heating flow temperature and domestic hot water temperature (→ "Setting the heating flow temperature" section/→ "Setting the domestic hot water temperature" section).
	The system pressure is insufficient. Water deficiency in the heating installation (fault message: <b>F.22</b> , <b>F.23</b> , <b>F.24</b> )	Fill the heating installation (→ "Filling the heating installation" section).
	There is air in the heating installation.	Have your competent person purge the heating installation.
	After three unsuccessful ignition attempts, the product switches to fault mode (fault message: <b>F.28</b> ).	Press and hold the <b>Reset</b> button for one second. The product makes another attempt to ignite the flame.  If you have been unable to eliminate the ignition fault after three reset attempts, consult a competent person.
Domestic hot water generation functioning correctly; heating does not start up.	There is a fault in the flue gas route (fault message: <b>F.36</b> ).	Have your competent person rectify the fault.
	The external control is not set correctly.	Set the external control correctly (→ Control operating instructions).



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### **Supplier**

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