



**CN-  
EN**

Operating instructions

**WALL MOUNTED GAS CONDENSING BOILER**

CGB-2-75/100

English | subject to modifications!

## 注意事项

- 1 错误安装将对人、畜和财产造成损害；
- 2 请严格按照沃乐夫制造工厂的说明书及相应的国家及地方技术标准来进行安装和调试；
- 3 只有持有电工和燃气专业操作证书的授权经销商和安装商，才能存储 / 更换锅炉零件或者整个锅炉；
- 4 为保证安全标准的贯彻，请使用原厂配件；
- 5 请用沃乐夫原厂提供的烟道系统设计和配件，禁止随意更改，严格禁止将双烟道系统改为单烟道系统；
- 6 对燃气压力控制器和燃气控制进行的专业维护维修，必须由燃气专业公司或者设备制造厂家进行；
- 7 为确保安全，请在安装商处购买原厂锅炉，请勿在经销商处购买经过非授权更改过的锅炉；
- 8 应在锅炉前的燃气管道上的明显位置安装燃气截止阀；
- 9 请勿将锅炉安装在具有强电磁辐射的电器周围，如电磁炉、微波炉等等；
- 10 禁止拆除锅炉上的任何密封件；
- 11 不能使用带有腐蚀性的清洁剂来清洁锅炉；
- 12 禁止将锅炉安装在卧房、起居室和浴室；
- 13 禁止儿童和无行为能力者操作锅炉，禁止将锅炉当成玩具给儿童玩耍；
- 14 禁止用户独自操作供暖安全阀和供暖热水排水阀；只有专业的技术人员方可操作；
- 15 请勿将锅炉安装在隐蔽的位置；
- 16 负责维护和检查的人员在对锅炉进行维护检查后应在维护和检查结果上进行标注并留档；
- 17 室内的配电系统应安装地线；请勿将与锅炉相连的开关安装在带有浴缸或淋浴设备的房间；使用的插头和插座应通过中国相关部门的认证；
- 18 防冻保护：锅炉安装位置的周围温度需高于 +5 度并且具有防雨保护设施；
- 19 用户需注意，在冬季长期停机期间，必须彻底排空锅炉内采暖和热水系统中的水，此外禁止在锅炉采暖水中加入防冻液；
- 20 采暖循环的水质必须满足安装手册中对水质的相关要求；
- 21 补水时需要操作人员一直在现场并按《使用说明书》中规定的正常工作压力范围 (1.2-1.8 bar) 内补水，若低于 1.0 bar 请补水至正常工作压力，补水后立即关掉补水阀；
- 22 只有保证采暖和生活热水系统的正确设计、施工、安装、维护和操作，锅炉才能正确工作，并保证对应的效率；
- 23 采暖及生活热水的运行费用，不仅仅与锅炉有关，亦与整个系统的构建和运行模式有关。

## Cautions

1. Improper installation may cause hazards to human, livestock and object.
- 2 Installation and commissioning of boilers shall be carried out in strict accordance with the requirements of instruction and the relevant national and local technical requirements.
- 3 Only professionally trained, especially professionally certified in doing electrical and gas work, dealers or technical personnel authorized by the manufacturer may conduct professional maintenance or replace spare parts or the entire appliance.
- 4 Original fittings shall be used to avoid reduction of the appliance safety.
- 5 Original flue gas ducts shall be used, and random changes of other ducts are not allowed; it is strictly forbidden to replace coaxial ducts with single pipe ducts;
- 6 Maintenance work of gas pressure regulating valve and control shall be completed by related appliance manufacturer.
- 7 Original productions of the manufacturer, but not the boilers customized by the distributors shall be bought to ensure safety.
- 8 Gas stop valve shall be installed on the pipeline in front of boiler when installing.
- 9 Boiler shall not be installed near electrical apparatuses with strong electromagnetic radiation, like induction cooker, microwave oven, etc.
- 10 It is strictly forbidden to dismantle any seal off the boiler.
- 11 Corrosive detergents shall not be used for boiler cleaning.
- 12 It is strictly forbidden to install boiler in bedroom, living room and bathroom.
- 13 Children and people who cannot operate boiler shall not deal with the work and it is strictly forbidden for children to toy with boilers.
- 14 Users shall not handle the heating safety valve and heating water outlet valve themselves; they shall be handled by professional personnel.
- 15 Boilers should not be installed concealed.
- 16 Maintenance and inspection personnel shall label and document the result of maintenance and inspection on appliances after the work.
- 17 Power distribution system in room shall be provided with earth wire; switch connected to boiler shall not be arranged in rooms with bath tub or shower device; plug and socket shall pass relevant Chinese certifications.
- 18 Frost protection: The boiler can only be installed in the environment with temperature above +5 degree and rain water protection.
- 19 Users shall be noted that during long shutdown periods in winter, the water in heating boiler and domestic hot water system shall be discharged completely. Adding anti-freeze agent is not allowed.
- 20 The water circulated in the heating system must meet the standard specified in the installation manual.
- 21 Operators are required to be on site when filling the boiler and water pressure shall be supplied within the normal working range (1.2-1.8 bar) as specified in the operation manual. If the water pressure is below 1.0 bar, please top up with water to normal working pressure, and turn off the water supply valve immediately after filling.
- 22 The boiler can only function well with target efficiency when the heating system and the DHW systems are properly designed, installed, maintained and operated.
- 23 The running cost of heating and DHW is NOT ONLY connected with the boiler, but also the built up of the system and the operating behavior.

# Table of contents

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<b>1</b>	<b>About this document.....</b>	<b>04</b>
1.1	Scope .....	04
1.2	Target group .....	04
1.3	Other applicable documents .....	04
1.4	Safekeeping of these documents .....	04
1.5	Symbols .....	04
1.6	Warnings .....	04
1.7	Abbreviations .....	05
<b>2</b>	<b>Safety.....</b>	<b>06</b>
2.1	Intended use .....	06
2.2	Safety measures .....	06
2.3	General safety information .....	06
<b>3</b>	<b>Description.....</b>	<b>08</b>
3.1	CGB-2-75 / CGB-2-100 wall mounted gas condensing boiler layout .....	08
<b>4</b>	<b>Positioning or alteration .....</b>	<b>09</b>
4.1	Installation site requirements .....	09
4.1.1	Conditions for use .....	09
4.1.2	Requirements regarding combustion air .....	09
4.2	Alterations to the heating system .....	09
<b>5</b>	<b>Maintenance.....</b>	<b>10</b>
5.1	Check heating system .....	10
5.1.1	Check shut-off valves .....	10
5.1.2	Vent radiators .....	10
5.1.3	Check the system pressure.....	10
5.2	Care .....	10
5.3	Overview of activities .....	11
<b>6</b>	<b>Operation.....</b>	<b>12</b>
<b>7</b>	<b>Maintenance.....</b>	<b>13</b>
<b>8</b>	<b>Fault.....</b>	<b>14</b>
<b>9</b>	<b>Decommissioning.....</b>	<b>15</b>
9.1	Taking the heat generator out of service temporarily .....	15
9.2	Putting the heat generator back into service .....	15
9.3	Taking the heat generator out of service in an emergency .....	15
9.4	Taking the heat generator out of service permanently .....	15
<b>10</b>	<b>Recycling and disposal.....</b>	<b>16</b>
<b>11</b>	<b>Energy efficient operation .....</b>	<b>17</b>
11.1	Heating mode .....	17
11.2	DHW mode.....	17
<b>12</b>	<b>Notizen.....</b>	<b>18</b>

# About this document

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## 1 About this document

- ▶ Read this document before you begin working on the appliance.
  - ▶ Follow the instructions in this document.
- Failure to observe these instructions voids any WOLF GmbH warranty.

### 1.1 Scope

This document contains instructions for the CGB-2-75/100 wall mounted gas condensing boiler.

### 1.2 Target group

This document is intended for users of the CGB-2-75/100 wall mounted gas condensing boiler.

### 1.3 Other applicable documents

CGB-2-75/100 maintenance instructions for contractors  
CGB-2-75/100 operating instructions for contractors  
Hydraulic system solutions technical guide for contractors

The documents for all accessory modules and other accessories also apply where relevant.

### 1.4 Safekeeping of these documents

Documents must be kept in a suitable location and must be available at all times.  
The user is responsible for the safekeeping of all documents.  
The documents are provided by the contractor.

### 1.5 Symbols

The following symbols are used in this document:



Symbol	Meaning
▶	An action which must be taken
▬▶	A necessary requirement
✓	The outcome of an action
	Important information regarding the proper use of the heat generator
	A reference to other relevant documents

Table 1.1 Meaning of the symbols

### 1.6 Warnings

Warnings in the text warn you of possible risks before the start of an instruction. The warnings provide you with information on the possible severity of the risk using a pictogram and a keyword.





Symbol	Keyword	Explanation
	<b>DANGER</b>	This means that there is a risk of serious injury or loss of life.
	<b>WARNING</b>	This means that there is a potential risk of serious injury or loss of life.
	<b>CAUTION</b>	This means that there is a potential risk of minor to moderate injury.
	<b>NOTE</b>	This means that material damage may occur.

Table 1.2 Meaning of warnings

#### Layout of warnings

These warnings are laid out as follows:

# About this document

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## **KEYWORD**

**Type and source of risk!**

Explanation of the risk.

▶ Action to prevent the risk.

## **1.7 Abbreviations**

HLSC	High limit safety cut-out
eHLSC	Electronic high limit safety cut-out
BM-2	Programming unit
AM	Display module

## 2 Safety

- ▶ The heat generator may only be worked on by contractors.
- ▶ In accordance with VDE 0105 Part 1, work on electrical components may only be carried out by qualified electricians.

### 2.1 Intended use

The heat generator may only be used to heat water for heating systems and for DHW heating. The heat generator must not be operated outside of its permitted output range.

The heat generator may not be used for any other purpose. We assume no liability for any damage caused as a result.

In accordance with DIN EN 60335-1:2012:

“This appliance may be used by children aged from 8 years and above and by persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction about how to use the appliance in a safe manner and understand the hazards involved. Children must not play with the heat generator. Cleaning and maintenance by users must not be performed by children without supervision.”

### 2.2 Safety measures

Never remove, bypass or otherwise disable any safety or monitoring equipment. Only operate the heat generator if it is in perfect technical condition. Any faults or damage that impact or might impact safety must be remedied immediately by a qualified contractor.

- ▶ All faulty components of the heat generator must be replaced with original WOLF spare parts.

### 2.3 General safety information



#### **DANGER**

##### **Electrical voltage!**

Danger of death from electrocution.

- ▶ All electrical work must be performed by a qualified contractor.



#### **DANGER**

##### **Insufficient combustion air supply or flue gas removal!**

Risk of asphyxiation or severe to life-threatening poisoning.

- ▶ Switch OFF the heat generator if you can smell flue gas.
- ▶ Open windows and doors.
- ▶ Notify an approved contractor.



#### **DANGER**

##### **Escaping gas!**

Risk of asphyxiation or severe to life-threatening poisoning.

- ▶ Close the gas tap if you smell gas.
- ▶ Open windows and doors.
- ▶ Notify an approved contractor



#### **WARNING**

##### **Hot water!**

Risk of scalding hands from hot water.

- ▶ Before working on parts which are in contact with water, allow the appliance to cool to below 40°C.
- ▶ Use safety gloves.

# Safety

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## **WARNING**

### **High temperatures!**

Risk of burns on the hands from hot components.

- ▶ Before working on an open heat generator, allow the heat generator to cool to below 40°C.
- ▶ Use safety gloves.



## **WARNING**

### **Overpressure on the water side!**

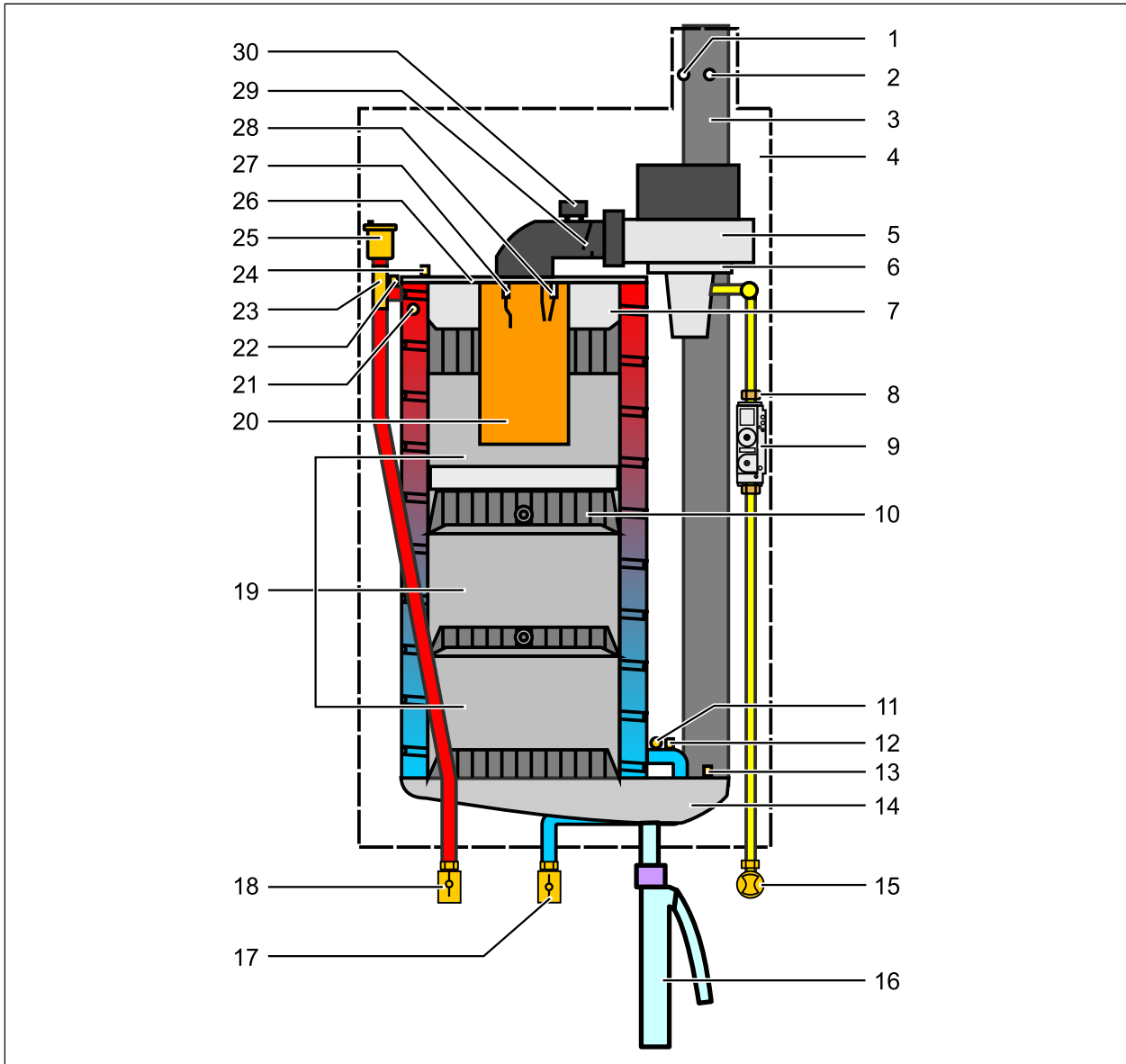
Risk of injury due to high overpressure in the heat generator, expansion vessels and sensors.

- ▶ Close all valves.
- ▶ Empty the heat generator if necessary.
- ▶ Use safety gloves.

# Description

## 3 Description

### 3.1 CGB-2-75 / CGB-2-100 wall mounted gas condensing boiler layout



**Fig. 3.1 Wall mounted gas condensing boiler layout**

- |  |   |
|--|---|
| 1 Ventilation air test point             | 16 Condensate trap                        |
| 2 Flue gas test point                    | 17 Heating return                         |
| 3 Flue pipe                              | 18 Heating flow                           |
| 4 Combustion chamber casing              | 19 Displacement device                    |
| 5 Gas fan                                | 20 Burner                                 |
| 6 Gas-air mixing chamber                 | 21 Flow sensor                            |
| 7 Combustion chamber cover insulation    | 22 eHLSC flow                             |
| 8 Gas restrictor                         | 23 Flash trap                             |
| 9 Gas combination valve                  | 24 Combustion chamber temperature limiter |
| 10 Heating water heat exchanger          | 25 Quick-action air vent valve            |
| 11 Water pressure sensor                 | 26 Combustion chamber cover               |
| 12 Return sensor                         | 27 monitoring electrode                   |
| 13 Flue gas temperature sensor           | 28 Ignition electrode                     |
| 14 Condensate pan                        | 29 Back draught safety device             |
| 15 Gas supply pipe / gas appliance valve | 30 Ignition transformer                   |



# Positioning or alteration

## 4 Positioning or alteration

### 4.1 Installation site requirements

- ⚠ DANGER**  
**Conversion or alteration of the installation site.**  
Risk of injury and damage to the system.  
▶ Work must be performed by a contractor.

#### 4.1.1 Conditions for use

Operating mode	Conditions
Open flue	▶ Openings in doors and walls may not be sealed or made smaller. ▶ Install the flue.
Room sealed	▶ Install the balanced flue system. ▶ Do not cover the cowl.

#### 4.1.2 Requirements regarding combustion air

The following requirements apply at the installation site and the surrounding area:

Description	Possible consequences of failing to follow instructions
No storage or use of explosive and flammable materials, e.g. petrol, thinner, paint, paper, etc.	Risk of poisoning, suffocation, explosion and fire
No storage or use of sprays, solvents, chlorinated cleaning agents, paints, lacquer, adhesives, salts, etc.	Corrosion of heat generator or flue system
No ducted vents in the vicinity of the air intake on roof	Corrosion of heat generator or flue system


## 4.2 Alterations to the heating system

- ⚠ DANGER**  
**Improper alterations to the heat generator or other parts of the heating system.**  
Risk of injury and damage to the system.  
▶ Work must be performed by a contractor.

- ⚠ DANGER**  
**Improper alterations to the balanced flue lines!**  
Risk of asphyxiation or severe to life-threatening poisoning.  
▶ Work must be performed by a contractor.

## 5 Maintenance

### 5.1 Check heating system

 The following checks must be performed on a regular basis.  
This will be explained to you by your contractor.

#### 5.1.1 Check shut-off valves

▶ Open the shut-off valves for heating flow and return.

#### 5.1.2 Vent radiators

 **WARNING**

**Hot water!**

Scalding.

▶ Use safety gloves.

- ▶ Open thermostatic valve of radiator to maximum.
- ▶ Open the air vent valve on the radiator with the radiator venting key.
- ▶ Wait until water starts coming out of the valve.
- ▶ Close the air vent valve on the radiator.

#### 5.1.3 Check the system pressure

 **NOTE**

The system pressure shall be always kept within the range. If it is lower than the allowable pressure value, the appliance will display low pressure fault that self-service is not possible to be performed. After long period of the low pressure, the appliance will possibly experience further fault or damaging, for instance pump sticking.

▶ Check the system pressure (set value between 1.5 and 2.5 bar).

System pressure below 1.5 bar:

▶ Notify a contractor.

### 5.2 Care



- ▶ Clean the casing with a damp cloth and a mild cleaning agent (must not contain chlorine).
- ▶ Dry the casing.
- ▶ Components in and directly on the heat generator may only be cleaned by a contractor.

# Maintenance

## 5.3 Overview of activities

Contractor	User	Activities	When required			
			Once	Annual	Monthly	
		• Check pH level 8 to 12 weeks after commissioning.	•	•		
		• • Perform a visual inspection of the heat generator.				•
		• • Vent radiators.	•			
		• • Check shut-off valves.			•	
		• • Check the system pressure.				•
		• • Clean casing.	•			
		• Perform maintenance.			•	
		• • Take the heat generator out of service temporarily.	•			
		• • Put the heat generator back into service.	•			
		• • Take the heat generator out of service in an emergency.	•			
		• Take the heat generator out of service permanently.	•			

## 6 Operation

-  BM-2 programming unit operating instructions for users
-  AM display module operating instructions for users
- ▶ Control the heat generator using the control module.

## 7 Maintenance



### **WARNING**

#### **Improper maintenance!**

Risk of injury and damage to the system.

- ▶ Inspections and maintenance must be performed by a contractor.



### **WARNING**

After having filled with water, the power supply must be granted that the appliance can perform self-service in every 24 hours. For instance, the pump and the 3-VW shall operate 60 seconds after every 24 hours.



CGB-2-75/100 wall mounted gas condensing boiler maintenance instructions for contractors



WOLF recommends concluding an inspection and maintenance contract with a contractor.

### **Obligations of the operator**

Follow the instructions below to ensure that the heat generator functions reliably and safely:

- ▶ The system must be maintained on an annual basis in accordance with Section 11(3) EnEV.
- ▶ Follow the instructions.

# Fault

## 8 Fault



### CAUTION

#### Improper troubleshooting!

Risk of injury and damage to the system.

- ▶ Repair work must be performed by a contractor.



BM-2 programming unit operating instructions for users

AM display module operating instructions for users

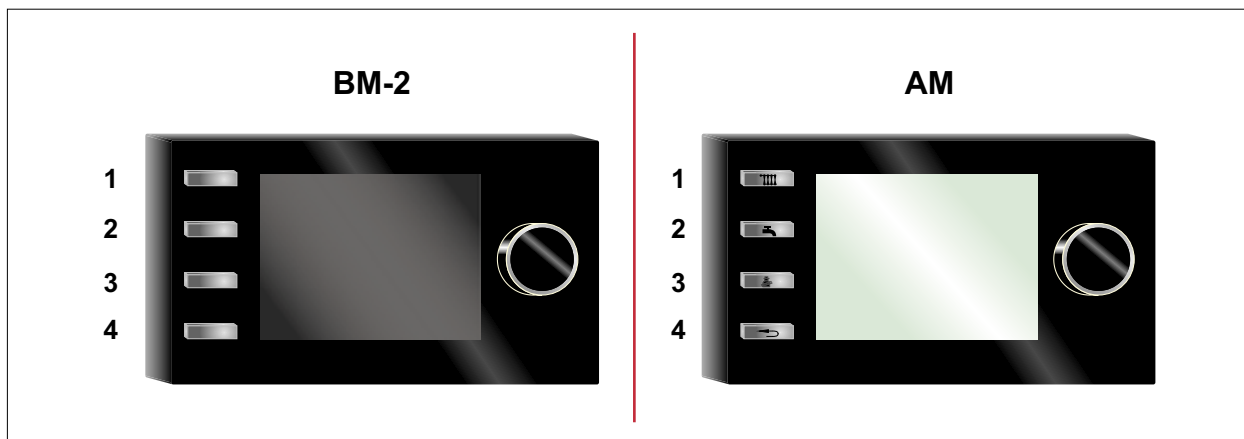


Fig. 8.1 Overview of control module buttons

If a fault is displayed:

- ▶ Make a note of the fault code displayed on the connected control unit accessory.
- ▶ Press **button 4**.
- ✓ This will reset the heat generator and put it back into service.

If fault persists:

- ▶ Switch the heat generator off and on again with the ON/OFF switch.
- ▶ Press **button 4**.

If fault persists:

- ▶ Switch OFF the heat generator at the ON/OFF switch.
- ▶ Contact a contractor.

# Decommissioning

## 9 Decommissioning



### NOTE

#### Improper shutdown!

Pump damaged due to downtime.

Heating system damaged due to frost.

- ▶ The heat generator may only be operated using the control module.

### 9.1 Taking the heat generator out of service temporarily



BM-2 programming unit operating instructions for users

- ▶ Activate **standby mode** using the control module, **however please keep the electrical power connected.**

### 9.2 Putting the heat generator back into service

- ▶ Activate a heating mode using the control module.

### 9.3 Taking the heat generator out of service in an emergency

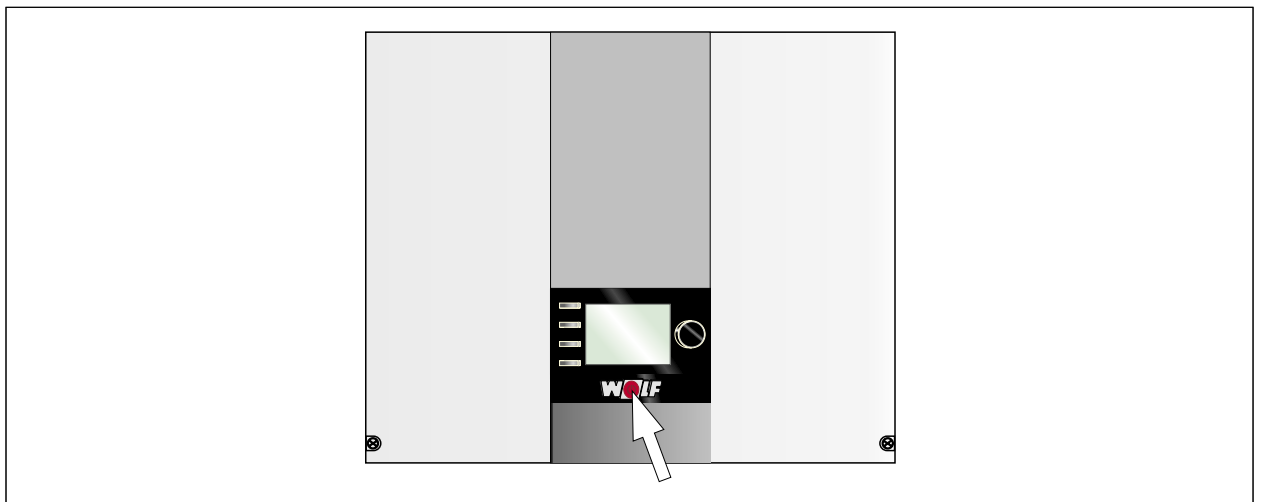


Fig. 9.1 ON/OFF switch

- ▶ Switch OFF the heat generator at the ON/OFF switch.
- ▶ Notify a contractor.

### 9.4 Taking the heat generator out of service permanently



CGB-2-75/100 operating instructions for contractors

- ▶ The heat generator may only be taken out of service by a contractor.

# Recycling and disposal

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## 10 Recycling and disposal



### **DANGER**

#### **Electrical voltage!**

Danger of death from electrocution.

- ▶ The heat generator may only be disconnected from mains power by a contractor.



### **NOTE**

#### **Escaping water!**

Water damage.

- ▶ Collect any remaining water from the heat generator and the heating system.



Do not dispose of as household waste!

- ▶ In accordance with the Waste Disposal Act, the following components must be disposed of or recycled in an environmentally compatible manner by means of appropriate collection points:
  - Old appliance
  - Wearing parts
  - Defective components
  - Electrical or electronic waste
  - Environmentally hazardous liquids and oilsEnvironmentally compatible means separated by material groups to ensure the greatest possible recyclability of the base materials with the minimum environmental impact.
- ▶ Dispose of packaging made of cardboard, recyclable plastics and synthetic filler materials in an environmentally compatible manner through appropriate recycling systems or a recycling centre.
- ▶ Please observe the applicable national and local regulations.



# Energy efficient operation

## 11 Energy efficient operation

### 11.1 Heating mode

Tip	Explanation
<b>State of the art</b>	Advanced condensing technology recovers the energy that, in non-condensing appliances, is expelled to the atmosphere with the flue gas, and uses it for heating.
<b>Regular maintenance</b>	A contaminated burner or poorly adjusted heat generator can reduce the efficiency of a heating system. Having your system maintained regularly pays for itself quickly.
<b>Optimum return temperature</b>	Where possible, operate your heating system with a return temperature below 45°C. This maximises the efficiency of the boiler.
<b>Control</b>	<p>A heating system in standby mode saves energy. A weather-compensated or room temperature-dependent control unit with automatic night setback and thermostatic valves ensures that the system only operates when heat is actually required.</p> <p>Fit your heating system with a weather-compensated heating controller from the WOLF range of accessories. Your contractor will be happy to advise you on optimum settings.</p> <ul style="list-style-type: none"><li>– Use the night setback function in conjunction with WOLF control accessories. This matches the energy level to the actual demand period.</li><li>– Use summer mode when possible.</li></ul>
<b>Circulation pump</b>	The circulation pumps should be controlled by the heat generator directly if possible. The WOLF control system lets you control DHW circulation to match your habits.
<b>Optimum room temperature</b>	<p>Regulate the room temperature as accurately as possible. This will allow occupants to feel comfortable and will not waste energy on delivering heating output that nobody needs. Identify the optimum temperature for different rooms, such as living rooms and bedrooms.</p> <p>A room temperature that is one degree higher than necessary represents an additional energy consumption of approx. 6 %!</p> <ul style="list-style-type: none"><li>– Use room thermostats to match the room temperature to the actual use of the room.</li><li>– In any room where you have installed a room temperature sensor, open the thermostatic valve fully. This optimises the operation of the heating system.</li></ul>
<b>Air circulation</b>	Air must be able to circulate freely near radiators and room temperature sensors, otherwise the heating system will be less effective. Long curtains or poorly positioned furniture can absorb up to 20 % of heat!
<b>Blinds</b>	At night, closing blinds and drawing curtains noticeably reduces heat loss through the window surfaces. Thermally insulated radiator recesses and light coloured paintwork can save up to 4 % on your heating bills. Airtight joints at windows and doors help to keep energy inside the room.
<b>Ventilation</b>	Ventilation for hours loses the heat which is stored in walls and objects. As a result, the room will only become comfortable again after prolonged heating. Short and thorough airing is more effective and more pleasant.
<b>Radiator</b>	Regularly vent radiators in every room. This ensures that radiators and thermostats continue to operate properly, especially in upper floor apartments of apartment buildings. The radiators will respond quickly to changing heat demands.

### 11.2 DHW mode

Tip	Explanation
<b>Optimum DHW temperature</b>	Only ever set the DHW temperature or that of the cylinder to the temperature you really require. Any additional heating uses additional energy.
<b>Hot water use</b>	<p>Showering consumes only approximately 1/3 of the amount of water required for a bath.</p> <p>Repair any dripping taps immediately.</p>





沃乐夫暖通设备（上海）有限公司

地址： 上海市长宁区福泉北路 388 号 B 座 2 楼 03 单元

邮编： 200335

客服电话： 400-050-6150

网站： [www.wolfhvac.com](http://www.wolfhvac.com)

[www.wolf-heiztechnik.com.cn](http://www.wolf-heiztechnik.com.cn)

微信公众号：



抖音号：



生产者： WOLF GmbH（沃乐夫集团公司）

Industriestrasse 1

D - 84048 Mainburg

Germany（德国）

网站： [www.wolf.eu](http://www.wolf.eu)